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CITY OF CARLISLE.

REPORT

ON THE

Sanitary Condition of the City of Carlisle

FOR THE YEAR 1923,

BY

JOSEPH BEARD,

F.R.C.S. (Edin.), M.P.C.S. (Eng.), L.R.C.P. (Lond.),

D.P.H. (Cantab.), F.R.S. (Edin.).

Of Gray's Inn, Barrister-at-Law.

Medical Officer of Health,

School Medical Officer,

Chief Tuberculosis Officer, &c.

CARLISLE.

CHAS. THOMSON & SONS, LTD., PRINTERS, FARRINGTON ROAD.

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CARLISLE:

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PUBLIC HEALTH STAFF

including all who are employed in work connected with the public health, whether under the Health, Maternity and Child Welfare, or the Education Committees:—

| | |
|---|---|
| Medical Officer of Health, School Medical Officer, Chief Tuberculosis Officer, &c., &c. | JOSEPH BEARD, F.R.C.S., D.P.H., &c., &c. |
| Assistant Medical Officer of Health, Tuberculosis Officer, and Assistant School Medical Officer | ALLAN SEMPLE, M.B., Ch. B., D.P.H. |
| Assistant School Medical Officer. and Assistant Medical Officer (M. & C. W.) | Miss E. E. BOURNE, M.B., Ch.M., D.P.H. |
| Dental Surgeon (part-time) | WILLIAM TAYLOR, L.D.S. |
| Veterinary Inspector (part-time) | R. CRAIG ROBINSON, M.R.C.V.S. |
| Chief Sanitary Inspector, and Inspector under Sale of Food and Drugs Acts and Shops Acts | * C. W. HILL |
| Assistant Sanitary Inspectors | ††* W. HANSON * E. S. BROADHEAD |
| Health Visitors | Misses H. M. HILL, J. G. SMITH, C. STORDY |
| Nurse in charge of School Clinic and Tuberculosis Dispensary | Miss M. E. GLOYNE |
| School Nurses | Misses J. M. TINNION, A. F. MACDONALD, J. S. GUTHRIE |
| Matron of Maternity Hospital | Miss A. H. HARRIS |
| Clerks | G. E. BARROW, R. F. THOBURN, Misses L. HIND, and M. PURDAM |
| Disinfectors | H. PORTER |
| Superintendent of Public Slaughter- houses | J. DODDS |
| Public Analysts (part-time) | Messrs. HELLON & MANN, WHITE- HAVEN |
| Bacteriologists (part-time) | PUBLIC HEALTH LABORATORY, MAN- CHESTER CLINICAL RESEARCH ASSOCIATION, LONDON |

* Sanitary Inspectors' Certificate, R.S.I.

† Sanitary Inspectors' Certificate, S.I.A.

†† Meat Inspectors' Certificate, R.S.I.

The following Acts, Bye-laws, and Regulations are in force in the district, and were adopted on the dates mentioned:—

| | | |
|--|--------|------------------|
| Bye-laws with respect to New Streets and Buildings under the Public Health Act, 1875 | ... .. | 13th Oct., 1885 |
| Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order of 1885 | ... .. | 16th July, 1889 |
| The Infectious Diseases (Prevention) Act, 1890 | ... .. | 10th March, 1891 |
| The Public Health Acts (Amendment Act), 1890 | ... .. | 10th March, 1891 |
| Bye-laws for regulating the Public Pleasure and Recreation Grounds, made in pursuance of the Public Health Act, 1875 | ... .. | 14th Feb., 1893 |
| Bye-laws with respect to Common Lodging-houses, made in pursuance of Section 80 of the Public Health Act, 1875 | ... .. | 15th Aug., 1893 |
| Bye-laws relating to the conveyance of carcases of dead animals through the streets | ... .. | 8th Jan., 1895 |
| Bye-laws for regulating the Carlisle Public Slaughter-houses under the Public Health Act, 1875 | ... .. | 12th May, 1896 |
| Bye-laws made for regulating the carrying on of offensive trades, in pursuance of Section 113 of the Public Health Act, 1875 | ... .. | 9th March, 1897 |
| Baths and Wash-houses Acts | ... .. | 9th July, 1901 |



To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to submit my report on the Health of the City during the year 1923.

Much other detail of interest might have been added, but I have kept the report as far as practicable within the limit of the instructions contained in a circular of the Ministry of Health, giving, of course, consideration to the recording of any such particulars as may be required for future reference.

I am,

Ladies and Gentlemen,

Your obedient Servant,

JOSEPH BEARD,
Medical Officer of Health.

Public Health Department,
19 Fisher Street,
Carlisle,
April, 1924.

GENERAL STATISTICS.

| | |
|---|-----------------------|
| Area (acres) | 4,488 |
| Population (1923) Estimate of Registrar-General | 54,010 |
| Number of Inhabited Houses, 1921 | 12,017 |
| Number of Families or Separate Occupiers (1921) | Figure not available. |
| Rateable Value | £314,054 |
| Sum represented by a Penny Rate | £1,173 |

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

| | | | | |
|---------------|--------|-----|-----|-----------------|
| Births— | Total. | M. | F. | |
| Legitimate | 1128 | 569 | 559 | |
| Illegitimate | 53 | 20 | 33 | |
| | | | | Birth-rate 21.8 |
| Deaths | 732 | 362 | 370 | |
| | | | | Death-rate 13.5 |

Number of women dying in, or in consequence of, childbirth—

| | |
|--------------------------|---|
| From Sepsis | 1 |
| From other causes | 8 |

Deaths of Infants under one year of age per 1,000 births—

| | |
|---------------------|-------|
| Legitimate | 81.4 |
| Illegitimate | 113.2 |
| — Total | 82.9 |

| | |
|---|----|
| Deaths from Measles (all ages) | 45 |
| „ Whooping Cough (all ages) | 8 |
| „ Diarrhoea (under 2 years of age) | 10 |

POPULATION.

The estimate of the population at mid-year, 1923, supplied to me by the Registrar-General, is 54,010, and this figure has been used in making the calculations for this report.

BIRTHS.

The number of births registered during the year was 1,181, a decrease of 86 on the figure for the previous year. The birth-rate is 21.8 per 1,000 of the population at all ages, a decrease of 1.8 on the previous year's figure.

The birth-rate for the whole of England and Wales during 1923 was 19.7 per 1,000. The rate for the 105 great towns, to which classification Carlisle belongs, was 20.4 per 1,000, and for the 157 smaller towns of England and Wales 19.8 per 1,000.

| Year. | Number of Births Registered. | | | Per 1,000 of the population. |
|-------|------------------------------|----------|--------|------------------------------|
| | Males. | Females. | Total. | |
| 1918 | 524 | 509 | 1033 | 17.1 |
| 1919 | 557 | 509 | 1066 | 18.5 |
| 1920 | 759 | 666 | 1425 | 24.7 |
| 1921 | 679 | 631 | 1310 | 24.6 |
| 1922 | 641 | 626 | 1267 | 23.6 |
| 1923 | 589 | 592 | 1181 | 21.8 |

Table showing details of the Births in the several Wards, 1923.

| QUARTER ENDING. | STANWIX AND ETERBY. | RICKERGATE. | AGLIONBY. | GREYSTONE. | ST. NICHOLAS. | CURROCK. | DENTON HOLME. | ST. CUTHBERT'S. | CALDEWEGATE. | NEWTOWN AND BELLE VUE. | TOTALS FOR CITY. |
|--------------------|------------------------|-------------|-----------|------------|---------------|----------|---------------|-----------------|--------------|---------------------------|---------------------|
| March 31 | 11 | 28 | 34 | 29 | 26 | 26 | 44 | 34 | 31 | 15 | 278 |
| June 30..... | 14 | 33 | 35 | 28 | 44 | 17 | 45 | 39 | 37 | 21 | 313 |
| September 30 .. | 13 | 27 | 28 | 28 | 22 | 21 | 52 | 42 | 48 | 12 | 293 |
| December 31..... | 11 | 25 | 28 | 36 | 37 | 25 | 37 | 41 | 40 | 17 | 297 |
| Totals.... | 49 | 113 | 125 | 121 | 129 | 89 | 178 | 156 | 156 | 65 | 1181 |

ILLEGITIMATE BIRTHS.

The number of illegitimate births registered was 53, or 44.8 per 1,000 of the total births. This shows a decrease of 22 upon the figure for 1922.

In 5 instances, or 9.4 per cent. of the total illegitimate births for the year, the mother was not a resident of the City.

The distribution of the illegitimate births among the several wards was as follows:—

| | Stanwix and Eterby | Rickergate | Aglionby | Greystone | St. Nicholas | Currock | Denton Holme | S. Cuthbert's | Caldeewgate | Newtown & Belle Vue | Totals for City |
|---------|-----------------------|------------|----------|-----------|--------------|---------|-----------------|---------------|-------------|------------------------|--------------------|
| Males | 1 | 2 | 3 | 1 | 1 | 1 | 4 | 3 | 2 | 2 | 20 |
| Females | 1 | 4 | 5 | 2 | 4 | 3 | 3 | 4 | 5 | 2 | 33 |
| Totals | 2 | 6 | 8 | 3 | 5 | 4 | 7 | 7 | 7 | 4 | 53 |

DEATHS.

The total number of deaths registered was 797, as compared with 864 in 1922. 26 deaths occurred of persons belonging to the City in institutions and other places away from Carlisle, while the deaths of 91 persons not belonging to the City occurred in public institutions and other places within the City. Excluding the latter figure, and adding the deaths of Carlisle residents which occurred in other districts, a nett figure of 732 remains, which is equal to a nett death-rate of 13.5 per 1,000.

The death-rate for the whole of England and Wales during 1923 was 11.6 per 1,000. The rate for the 105 great towns, to which classification Carlisle belongs, was 11.6 per 1,000, and for the 157 smaller towns of England and Wales 10.6 per 1,000.

Table showing details of the corrected Deaths in the several Wards, 1923.

| Quarter Ending | Stanwix and Etterby | Rickergate | Aglionby | Greystone | St. Nicholas | Carrock | Denton Holme | S. Cuthbert's | Caldewgate | Newtown & Belle Vue | Totals for City |
|----------------|---------------------|------------|----------|-----------|--------------|---------|--------------|---------------|------------|---------------------|-----------------|
| March 31 | 14 | 19 | 19 | 23 | 22 | 20 | 27 | 24 | 29 | 10 | 207 |
| June 30 | 16 | 28 | 24 | 16 | 16 | 17 | 18 | 20 | 35 | 19 | 209 |
| September 30 | 7 | 14 | 13 | 16 | 24 | 13 | 21 | 16 | 10 | 5 | 139 |
| December 31 | 9 | 18 | 14 | 22 | 21 | 20 | 21 | 20 | 19 | 13 | 177 |
| Totals | 46 | 79 | 70 | 77 | 83 | 70 | 87 | 80 | 93 | 47 | 732 |

Table showing the number of Deaths at all Ages and at several Age periods.

| | All Ages. | Under 1 Year. | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 65 | 65 and upwards. |
|--|-----------|---------------|---------------|----------------|-----------------|-----------------|-----------------|
| No. of Deaths at all ages and at several age periods | 732 | 98 | 83 | 23 | 23 | 237 | 268 |

The following Table shows the diseases causing the largest number of Deaths during 1923, and a comparison with those of 1922, &c.:—

| DISEASE. | 1922. | 1923. | Increase or Decrease | Average No. of Deaths for past 10 yrs. |
|---|-------|-------|----------------------------|---|
| Pulmonary Tuberculosis & Phthisis | 50 | 40 | —10 | 55 |
| Other forms of Tuberculosis ... | 14 | 14 | ... | 21 |
| Pneumonia | 50 | 52 | + 2 | 56 |
| Other Diseases of Respiratory System | 86 | 37 | —49 | 58 |
| Measles | ... | 45 | + 45 | 12 |
| Influenza | 55 | 7 | —48 | 34 |
| Whooping Cough | 7 | 8 | + 1 | 10 |
| Diphtheria, Membranous Croup ... | 2 | 10 | + 8 | 9 |
| Disease of Heart and Blood Vessels | 138 | 151 | +13 | 160 |
| Rheumatic Fever, Chronic Rheumatism, Rheumatoid Arthritis .. | 10 | 9 | — 1 | 6 |
| Cancer and Malignant Disease ... | 68 | 78 | +10 | 65 |
| Diseases of Digestive System other than Diarrhoea and Enteritis ... | 26 | 24 | — 2 | 25 |
| Diseases of Urinary System ... | 31 | 25 | — 6 | 30 |
| Diseases of Nervous System ... | 69 | 65 | — 4 | 44 |
| Prematurity and Injury at Birth, &c. | 48 | 59 | +11 | 38 |
| Accidents due to Negligence .. | 22 | 15 | — 7 | 21 |
| Diarrhoea and Enteritis ... | 21 | 15 | — 6 | 25 |

+ Shows an increase in the number of deaths.

— Shows a decrease in the number of deaths.

The following Table sets out the Cause and the Ages at Death
of 732 persons belonging to the City:—

| CAUSES OF DEATH. | | | NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT. | | | | | | | | | TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESI- DENTS" IN INSTITUTIONS IN THE DISTRICT. |
|---|----------------------------------|-----|--|---------------------|----------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|--|
| | | | All Ages. | Under 1 year. | 1 and under 2. | 2 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 45. | 45 and under 65. | 65 and up- wards | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | |
| All Causes { Certified | 717 | 96 | 41 | 41 | 23 | 23 | 65 | 166 | 262 | 244 | | |
| { Uncertified | 15 | 2 | 1 | .. | ... | ... | 1 | 5 | 6 | ... | | |
| Enteric Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Smallpox | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Measles | 45 | 9 | 19 | 17 | ... | ... | ... | ... | ... | 2 | | |
| Scarlet Fever | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | | |
| Whooping Cough | 8 | 1 | 6 | 2 | ... | ... | ... | ... | ... | ... | | |
| Diphtheria and Croup | 10 | ... | ... | 4 | 6 | ... | ... | ... | ... | 9 | | |
| Influenza | 7 | 1 | ... | ... | ... | ... | ... | ... | 6 | ... | | |
| Dysentery | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | | |
| Erysipelas | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Phthisis (Pulmonary Tuberculosis) | 40 | ... | 1 | 1 | 10 | 21 | 5 | 2 | ... | 6 | | |
| Tuberculous Meningitis | 9 | 1 | ... | 4 | 2 | 1 | 1 | ... | ... | 3 | | |
| Other Tuberculous Diseases | 5 | ... | 1 | .. | 1 | 1 | 1 | ... | ... | 3 | | |
| Cancer, Malignant Disease | 78 | ... | ... | ... | ... | ... | 2 | 34 | 42 | 33 | | |
| Rheumatic Fever | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | | |
| Meniugitis | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Organic Heart Disease | 83 | ... | ... | ... | 2 | 1 | 6 | 58 | 51 | 10 | | |
| Bronchitis | 31 | 3 | ... | ... | ... | ... | 1 | 9 | 18 | 3 | | |
| Pneumonia (all forms) | 52 | 11 | 11 | 7 | 2 | 1 | 3 | 8 | 9 | 10 | | |
| Other Diseases of Respiratory Organs... .. | 6 | ... | ... | ... | ... | 1 | ... | 1 | 4 | ... | | |
| Diarrhoea and Enteritis | 15 | 9 | 1 | 1 | .. | ... | 3 | 1 | ... | 9 | | |
| Appendicitis and Typhlitis | 3 | ... | ... | 1 | 1 | ... | ... | ... | 1 | 10 | | |
| Cirrhosis of Liver | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | | |
| Alcoholism | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Nephritis and Bright's Disease | 16 | ... | ... | ... | 1 | 1 | ... | 10 | 4 | 2 | | |
| Puerperal Fever | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | | |
| Other Accidents and Diseases of Preg- nancy and Parturition | 8 | ... | ... | ... | ... | 2 | 6 | ... | ... | 8 | | |
| Congenital Debility & Malformation, including Premature Birth | 59 | 54 | 4 | 1 | ... | ... | ... | ... | ... | 13 | | |
| Violent Deaths, excluding Suicide | 15 | ... | ... | 1 | 3 | 2 | 3 | 4 | 2 | 18 | | |
| Suicide | 5 | ... | ... | ... | ... | ... | 1 | 3 | 1 | 8 | | |
| Other Defined Diseases | 222 | 9 | 1 | 2 | 4 | 3 | 19 | 53 | 124 | 90 | | |
| Diseases ill-defined or unknown | 5 | ... | ... | ... | ... | ... | ... | 4 | 1 | 1 | | |
| Totals | 732 | 98 | 42 | 41 | 23 | 23 | 66 | 171 | 263 | 244 | | |
| Sub- Entries included in above figures | Cerebro-spinal Meningitis | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | Poliomyelitis | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | Typhus Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | Lobar Pneumonia | 10 | 1 | ... | 1 | ... | ... | 2 | 3 | 3 | 2 | |
| | Pneumonia not defined | 11 | 3 | 2 | 1 | ... | 1 | ... | 3 | 1 | 3 | |

**The following Table shows the Vital Statistics for
the whole City during 1923 and previous years:—**

| YEAR. | Population estimated to Middle of each Year | BIRTHS. | | | TOTAL DEATHS REGISTERED IN THE DISTRICT. | | TRANSFERABLE DEATHS. | | NETT DEATHS BELONGING TO THE DISTRICT. | | | |
|---------|---|------------------------|---------|-------|---|-------|--|--|---|-----------------------------------|-----------------|-------|
| | | Uncorrected Number. | Nett. | | Number. | Rate. | of Non-residents registered in the District. | of Residents not registered in the District. | Under 1 Year of age | | AT ALL AGES. | |
| | | | Number. | Rate. | | | | | Number. | Rate per 1,000 Nett Births. | Number. | Rate. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1914 | 52,530 | 1209 | 1209 | 23.0 | 848 | 16.1 | 69 | 22 | 148 | 122.4 | 801 | 15.2 |
| †1915 { | 52,625 50,036 | 1192 | 1192 | 22.6 | 994 | 18.8 | 72 | 31 | 172 | 144.3 | 953 | 18.1 |
| †1916 { | 49,721 54,097 | 1103 | 1103 | 20.3 | 850 | 17.0 | 93 | 24 | 112 | 101.3 | 781 | 15.7 |
| †1917 { | 59,151 53,064 | 1117 | 1120 | 18.9 | 826 | 15.5 | 101 | 46 | 119 | 106.5 | 771 | 14.5 |
| †1918 { | 60,188 53,717 | 1033 | 1037 | 17.2 | 921 | 17.1 | 120 | 49 | 131 | 126.8 | 850 | 15.8 |
| †1919 { | 57,500 55,198 | 1066 | 1078 | 18.7 | 778 | 14.1 | 112 | 54 | 115 | 107.9 | 720 | 13.6 |
| †1920 { | 57,697 57,397 | 1425 | 1417 | 24.7 | 785 | 13.7 | 117 | 37 | 114 | 80.0 | 705 | 12.3 |
| †1921 | 53,200 | 1310 | 1298 | 24.6 | 818 | 15.3 | 85 | 21 | 138 | 105.3 | 754 | 14.1 |
| †1922 | 53,490 | 1267 | 1267 | 23.6 | 864 | 16.1 | 101 | 21 | 103 | 81.2 | 784 | 14.6 |
| †1923 | 54,010 | 1181 | 1171 | 21.8 | 797 | 14.7 | 91 | 26 | 98 | 82.9 | 732 | 13.5 |

† Registrar-General's estimates of population.

**The following Public and other Institutions are
within the City:—**

The Union Workhouse and its Infirmary.
The Cumberland Infirmary.
Carlisle Non-Provident Dispensary.
The Crozier Lodge Isolation Hospital.
Strathelyde House (Home for Incurables).
St. Joseph's Home (aged and infirm persons).
Chadwick Memorial Industrial School.
Corporation Dispensary and School Clinic.
Corporation Maternity Hospital and Clinics.

Birth-rate, Death-rate, and Infantile Mortality in Carlisle since 1891.

| Year. | No. of Births. | Birth- rate. | No. of Deaths. | Gross Death- rate. | Infantile Mor- tality. | Average Five Years. | | |
|-------|----------------------|-----------------|----------------------|--------------------------|------------------------------|---------------------|-----------------|-------------------------|
| | | | | | | Birth- rate. | Death- rate. | Infantile Mortality. |
| 1891 | 1207 | 30.8 | 789 | 20.1 | 137 | 31.8 | 20.1 | 142.6 |
| 1892 | 1213 | 30.5 | 805 | 20.2 | 123 | | | |
| 1893 | 1389 | 34.5 | 868 | 21.6 | 178 | | | |
| 1894 | 1315 | 32.0 | 780 | 19.2 | 133 | | | |
| 1895 | 1311 | 31.4 | 794 | 19.4 | 142 | | | |
| 1896 | 1246 | 29.6 | 753 | 18.2 | 137 | 29.9 | 19.5 | 146.6 |
| 1897 | 1324 | 30.8 | 811 | 19.4 | 134 | | | |
| 1898 | 1311 | 30.0 | 935 | 22.2 | 183 | | | |
| 1899 | 1300 | 29.4 | 818 | 19.2 | 145 | | | |
| 1900 | 1354 | 30.1 | 807 | 18.8 | 134 | | | |
| 1901 | 1246 | 27.3 | 810 | 17.8 | 129 | 26.7 | 17.9 | 131.0 |
| 1902 | 1245 | 27.0 | 856 | 18.5 | 117 | | | |
| 1903 | 1322 | 28.4 | 813 | 17.4 | 118 | | | |
| 1904 | 1278 | 26.7 | 933 | 19.7 | 152 | | | |
| 1905 | 1168 | 24.3 | 783 | 16.3 | 139 | | | |
| 1906 | 1227 | 25.3 | 811 | 16.7 | 132 | 23.6 | 15.1 | 127.5 |
| 1907 | 1178 | 23.8 | 848 | 17.1 | 143 | | | |
| 1908 | 1223 | 24.4 | 713 | 14.2 | 129 | | | |
| 1909 | 1149 | 22.6 | 735 | 14.5 | 123.6 | | | |
| 1910 | 1145 | 22.2 | 683 | 13.2 | 110.0 | | | |
| 1911 | 1109 | 23.8 | 776 | 16.7 | 145.0 | 23.2 | 17.1 | 128.2 |
| 1912 | 1142 | 24.6 | 813 | 17.5 | 102.4 | | | |
| 1913 | 1164 | 22.1 | 821 | 15.6 | 127.1 | | | |
| 1914 | 1209 | 23.0 | 848 | 16.1 | 122.4 | | | |
| 1915 | 1192 | 22.6 | 1027 | 19.5 | 144.3 | | | |
| 1916 | 1103 | 20.3 | 850 | 17.0 | 101.5 | 19.9 | 15.5 | 104.5 |
| 1917 | 1117 | 18.8 | 826 | 15.5 | 106.5 | | | |
| 1918 | 1033 | 17.1 | 921 | 17.1 | 126.8 | | | |
| 1919 | 1066 | 18.5 | 778 | 14.1 | 107.9 | | | |
| 1920 | 1425 | 24.7 | 785 | 13.7 | 80 | | | |
| 1921 | 1310 | 24.6 | 818 | 15.3 | 105.3 | 22.6 | 11.7 | 91.4 |
| 1922 | 1267 | 23.6 | 864 | 16.1 | 81.2 | | | |
| 1923 | 1181 | 21.8 | 797 | 14.7 | 82.9 | | | |

The following figures relate to the deaths of persons not normally resident in the district which occurred within the City:—

| | | |
|---------------------------|-----|----|
| Cumberland Infirmary ... | ... | 54 |
| Private Nursing Homes ... | ... | 25 |
| Private Houses ... | ... | 6 |
| Fusehill Hospital ... | ... | 3 |
| Crozier Lodge ... | ... | 3 |

INQUESTS.

During the year the City Coroner held 37 inquests. Of this number, 30 related to deaths of persons who resided within the City, and 7 to persons who resided in other districts, but who died within the City. 4 related to children under five years of age, in 2 instances the infant being under one year.

MORTUARY.

7 bodies were removed to the Public Mortuary, a post-mortem examination being made in each instance.

UNCERTIFIED DEATHS.

15 deaths were registered of persons belonging to the City in which no certificate was given by a medical man, and in which no inquest was held.

During 1922, 27 such deaths were registered.

CANCER.

The following figures include all deaths from causes coming within the general term cancer. The number of deaths registered during 1923 was 78.

Calculated upon the population at all ages a mortality rate of 1.4 per 1,000 is obtained.

**TABLE OF DEATHS FROM CANCER,
1914 to 1923.**

| Age. | Numbers. | | | | | | | | | |
|--------------------|----------|------|------|------|------|------|------|------|------|------|
| | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 |
| 1 to 5 years ... | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5 to 15 years ... | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... |
| 15 to 25 years ... | ... | 1 | 1 | 1 | 1 | ... | ... | 1 | 1 | ... |
| 25 to 35 years ... | 2 | ... | 2 | 1 | 1 | 2 | 1 | 2 | ... | ... |
| 35 to 45 years ... | 10 | 3 | 6 | 7 | 5 | ... | 5 | 2 | 4 | 2 |
| 45 to 55 years ... | 10 | 7 | 17 | 10 | 13 | 9 | 15 | 5 | 12 | 13 |
| 55 to 65 years ... | 20 | 21 | 21 | 32 | 21 | 19 | 12 | 20 | 22 | 21 |
| 65 to 75 years ... | 16 | 20 | 18 | 14 | 17 | 15 | 17 | 19 | 15 | 26 |
| 75 & upwards ... | 10 | 6 | 9 | 8 | 7 | 4 | 11 | 4 | 14 | 16 |
| Totals ... | 68 | 58 | 74 | 73 | 66 | 49 | 62 | 53 | 68 | 78 |

RAINFALL.

Observations taken at the Carlisle Cemetery by J. T. Charlton, Esq.

| MONTHS. | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923. | | Average for 10 years 1913-1922. |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------------|
| | | | | | | | | | | | Rainfall. | Number of days on which Rain fell. | |
| January ... | in. 2.17 | in. 2.64 | in. 3.17 | in. 3.55 | in. 1.53 | in. 3.13 | in. 2.88 | in. 4.17 | in. 5.01 | in. 2.25 | in. 1.74 | 22 | in. 3.05 |
| February ... | 1.27 | 2.59 | 3.56 | 3.31 | 1.13 | 2.86 | 1.05 | 2.61 | 0.16 | 2.87 | 4.08 | 22 | 2.15 |
| March ... | 3.37 | 2.67 | 1.88 | 2.14 | 1.98 | 0.66 | 2.35 | 3.11 | 3.71 | 1.31 | 0.84 | 9 | 2.32 |
| April ... | 2.77 | 1.36 | 1.91 | 2.44 | 2.45 | 0.50 | 1.49 | 2.17 | 0.86 | 1.89 | 2.55 | 18 | 1.73 |
| May ... | 1.78 | 1.73 | 2.04 | 2.98 | 1.91 | 1.88 | 1.10 | 3.48 | 1.28 | 1.79 | 1.98 | 19 | 2.00 |
| June ... | 2.40 | 1.06 | 1.15 | 3.30 | 2.01 | 0.87 | 2.66 | 2.11 | 0.65 | 2.98 | 0.60 | 13 | 1.92 |
| July ... | 1.12 | 3.04 | 3.80 | 4.61 | 1.31 | 3.73 | 0.87 | 4.26 | 2.44 | 4.54 | 2.22 | 21 | 2.97 |
| August ... | 2.17 | 2.73 | 3.27 | 2.39 | 5.64 | 3.21 | 2.96 | 2.50 | 5.39 | 2.53 | 7.42 | 23 | 3.28 |
| September ... | 2.11 | 1.28 | 1.03 | 2.06 | 2.61 | 7.36 | 1.81 | 1.89 | 2.15 | 2.92 | 3.01 | 20 | 2.52 |
| October ... | 2.51 | 1.11 | 1.25 | 5.10 | 4.33 | 4.00 | 2.36 | 1.00 | 2.56 | 1.20 | 5.61 | 27 | 2.54 |
| November .. | 3.40 | 4.52 | 0.58 | 4.34 | 2.33 | 2.01 | 2.35 | 2.02 | 1.68 | 0.84 | 4.06 | 19 | 2.46 |
| December ... | 2.46 | 3.58 | 4.64 | 2.75 | 1.40 | 3.44 | 3.32 | 2.79 | 3.94 | 3.43 | 2.42 | 18 | 3.17 |
| Totals ... | 27.53 | 28.31 | 28.28 | 38.97 | 29.13 | 33.65 | 25.21 | 32.11 | 29.83 | 28.55 | 36.53 | 231 | 30.16 |
| Total number of days on which Rain fell { | 194 | 201 | 183 | 228 | 176 | 190 | 191 | 211 | 205 | 209 | ... | ... | 199 |

WATER SUPPLY.

Bacteriological Results of Quarterly Samples taken from a Domestic Tap.

Examinations made at the Public Health Laboratory, Manchester.

| QUANTITATIVE ANALYSIS | | 1923. | | | | | | | |
|--|--|-------|-------|------|------------------------------------|-------|-------|------|---|
| A. Aerobic micro-organism growing in 3 days in nutrient gelatine at 29° C. to 21° C. | Number of colonies in one gramme of water. | | | | No. of kinds clearly recognisable. | | | | |
| | MAR. | JUNE. | SEPT. | DEC. | MAR. | JUNE. | SEPT. | DEC. | |
| Non-Liquefying Bacteria ... | 37 | 89 | 17 | 29 | 2 | 4 | 3 | 3 | 6 |
| Liquefying Bacteria ... | 24 | 23 | 10 | 14 | 2 | 3 | 5 | 3 | |
| Other Micro-Organisms ... | 0 | 0 | 0 | 0 | ... | ... | ... | ... | |
| B. Anaerobic Micro-Organisms ... | ... | ... | ... | ... | ... | ... | ... | ... | |

| QUALITATIVE ANALYSIS. | | 1923. | | | |
|--|---|---|---|---|---|
| | MARCH. | JUNE. | SEPT. | DEC. | |
| A. Bacteria associated with sewage or faecal pollution | B. Coli communis found in 100 C.C. but not in 10 C.C. | B. Coli communis found in 100 C.C. but not in 10 C.C. | B. Coli communis found in 100 C.C. but not in 10 C.C. | B. Coli communis found in 100 C.C. but not in 10 C.C. | B. Coli communis found in 10 C.C. but not in 1 C.C. |
| B. Bacteria associated with disease | Not found. | Not found | Not found | Not found | Not found |

Bacteriologically all the samples were satisfactory.

Results of Chemical Analyses of Quarterly Samples of Water taken from a Domestic Tap.

Examinations made by Messrs. Hellon and Mann, Whitehaven.

| CHEMICAL. | 1923 | | | |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | MARCH. | JUNE. | SEPT. | DEC. |
| Total Solid Matter in solution dried at 212° Fahr. ... | 8.960 | 9.520 | 9.800 | 9.800 |
| Chlorine existing as Chlorides ... | .560 | .525 | .490 | .525 |
| Ammonia ... | .001 | .001 | traces | traces |
| Albuminoid Ammonia | .001 | .004 | .004 | .001 |
| Nitrogen existing as Nitrates ... | traces | traces | traces | traces |
| Oxygen absorbed in 15 minutes at 80° Fahr. | .019 | .076 | .089 | .035 |
| Oxygen absorbed in 4 hours at 80° Fahr. ... | .051 | .109 | .142 | .073 |
| Lead & other Poisonous Metals ... | None | None | None | None |
| Hardness before boiling | 7 $\frac{1}{4}$ ° | 6 $\frac{1}{2}$ ° | 7° | 7 $\frac{1}{4}$ ° |
| Hardness after boiling | 1 $\frac{3}{4}$ ° | $\frac{3}{4}$ ° | 1° | 1 $\frac{1}{4}$ ° |
| Appearance in two-foot tube ... | Clear yellowish-green | Clear greenish-yellow | Clear yellowish-green | Clear yellowish-green |
| Smell when heated to 100° Fahr. ... | None | None | None | None |
| Microscopical Examination ... | Slight deposit of Vegetable debris | Slight deposit of Vegetable debris | Slight deposit of Vegetable debris | Slight deposit of Vegetable debris |

A determination of the plumbo-solvent action of the water was made according to the method of the Local Government Board in all samples taken during the year, the results being satisfactory.

The Lacmoid re-action in all instances was Alkaline.

Total annual distribution of Water from Cumwhinton covered reservoir during the years 1914 to 1923.

| Year. | Number of Gallons. | No. of Gallons per head, per day. |
|-------|--------------------|-----------------------------------|
| 1914 | 690,410,000 | 33.34 |
| 1915 | 710,974,000 | 34.03 |
| 1916 | 758,483,000 | 35.80 |
| 1917 | 801,490,000 | 33.78 |
| 1918 | 795,220,000 | 34.58 |
| 1919 | 804,040,000 | 34.88 |
| 1920 | 814,170,000 | 35.41 |
| 1921 | 771,250,000 | 33.54 |
| 1922 | 759,500,000 | 32.98 |
| 1923 | 747,320,000 | 32.49 |

FOOD.

Milk Supply.

There are 23 registered cow-keepers in the City, and there were 36 occupied cow-sheds, with an average of 260 cows kept therein during the year. There were 52 purveyors of milk on the register.

16 samples of milk being brought into the City from outside dairies were purchased and submitted for bacteriological examination for the presence of tubercle bacilli, further details of which are shown on page 28.

54 samples of milk were purchased and submitted to chemical analysis during the year, of which 49 were found to comply with the standard laid down by the Regulations. The remaining 5 samples showed that the milk was below the limit in non-fatty solids, further particulars relating to which are given in the table on page 73.

Public Health (Milk and Cream) Regulations, 1912 and 1917.

1. Milk and Cream not sold as Preserved Cream.

Number of samples examined for the presence of a preservative:—

| | | | |
|-----------|-----|------------|------|
| Milk..... | 54. | Cream..... | Nil. |
|-----------|-----|------------|------|

Number in which preservatives were reported to be present:—

| | | | |
|-----------|------|------------|------|
| Milk..... | Nil. | Cream..... | Nil. |
|-----------|------|------------|------|

2. Cream sold as Preserved Cream.

No samples were taken for analysis during the year.

MEAT.

There are 3 private slaughter-houses in the City, with licences restricted in 2 instances to the killing of sheep and lambs, and the third restricted to pigs. 1 of the former is owned by the L. & N. E. Railway group, and another by the L. M. & S. Railway group, both of which are used during certain periods of the year for the slaughter of sheep and lambs for sale at Smithfield Market, London. The remaining slaughter-house, which is licensed only for the slaughter of pigs, forms part of the premises of Messrs. Cavaghan & Gray, Harraby. The slaughter of all animals within the City, other than those killed at the slaughter-houses previously mentioned, takes place at the Corporation Public Slaughter-houses.

The following Table gives particulars of Animals killed, Carcasses examined, and particulars of Carcasses unfit for human food:—

| Animal | Total number of animals slaughtered and examined | Number of carcasses specially referred for examination | Number in which the whole carcase was unfit for human food | Number in which a portion of a carcase was unfit for human food | Number affected with Tuberculosis. | |
|--------|--|--|--|---|------------------------------------|---------------------------|
| | | | | | Whole carcase condemned | Part of carcase condemned |
| Oxen | 4,028 | 85 | 51 | 34 | 30 | 13 |
| Sheep | 13,249 | 29 | 25 | 4 | ... | ... |
| Calves | 768 | 4 | 4 | ... | 1 | ... |
| Pigs | 4,644 | 14 | 9 | 5 | 1 | ... |
| Totals | 22,689 | 132 | 89 | 43 | 32 | 13 |

OTHER FOODS.

Information concerning unsound food, food inspection, bakehouses, &c., and the work under the Sale of Food and Drugs Acts, is given on pages 70 to 73 of the Report of the Sanitary Inspector.

INFECTIOUS DISEASES.

During the year 420 notifications of infectious diseases were received, 87 of which related to various forms of tuberculosis, and 333 to other infectious diseases.

The number of deaths certified as due to the seven principal zymotic diseases was 79, equal to a zymotic death-rate of 1.4 per 1,000 of the population. In the previous year 31 deaths were certified as due to zymotic diseases.

Table showing the Age and Seasonal incidence of the various Infectious Diseases notified during 1923.

| | Number of Cases Notified at various Ages. | | | | | | | Number of Cases notified in each Ward. | | | | | | | | | Total number of cases notified | Number of cases in- correctly notified | Nett number of cases notified | Number of cases removed to hospital | |
|-----------------------------|---|-----------|------------|-------------|-------------|-------------|-----------------|--|-------------|----------|-----------|--------------|---------|--------------|----------------|------------|--------------------------------|--|-------------------------------|-------------------------------------|---------------------|
| | Under 1 year | 1—5 years | 5—15 years | 15—25 years | 25—45 years | 45—65 years | 65 and up-wards | Stamwix and Eterby | Rickergrate | Aglionby | Greystone | St. Nicholas | Currock | Denton Holme | St. Cuthbert's | Caldewgate | | | | | Newtown & Belle Vue |
| Scarlet Fever | .. | 27 | 98 | 14 | 10 | 1 | .. | 1 | 8 | 14 | 37 | 19 | 22 | 11 | 10 | 22 | 6 | 150 | 3 | 147 | 82 |
| Diphtheria | .. | 22 | 53 | 4 | 6 | 2 | .. | .. | 7 | 7 | .. | 6 | 16 | 19 | 7 | 12 | 7 | 87 | 20 | 67 | 46 |
| Puerperal Fever | .. | .. | .. | .. | 4 | 11 | 3 | 2 | 1 | 1 | .. | 1 | 3 | .. | 2 | .. | .. | 4 | .. | 4 | .. |
| Erysip-las | .. | 1 | 1 | .. | 4 | .. | .. | .. | 2 | .. | .. | 5 | .. | .. | 1 | 3 | 3 | 20 | .. | 20 | 1 |
| Malaria | .. | .. | .. | 2 | 2 | 3 | 2 | 3 | 1 | 3 | 10 | 6 | 3 | 6 | .. | 8 | .. | 4 | .. | 4 | .. |
| Acute Primary Pneumonia | 5 | 17 | 9 | 4 | 8 | 2 | .. | .. | 3 | 3 | 2 | .. | .. | .. | .. | .. | .. | 48 | .. | 48 | 7 |
| Acute Influenzal Pneumonia | .. | 2 | 1 | .. | .. | 2 | .. | .. | .. | 3 | 2 | .. | .. | .. | .. | .. | .. | 5 | .. | 5 | .. |
| Encephalitis Lethargica | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | 1 | 3 | .. | 3 | .. |
| Ophthalmia Neonatorum | 12 | .. | .. | .. | .. | 6 | 3 | 6 | 1 | 3 | 8 | 11 | 8 | 3 | 8 | 11 | 5 | 12 | 1 | 11 | .. |
| Pulmonary Tuberculosis | .. | 6 | 17 | 13 | 26 | 6 | 3 | .. | 8 | .. | .. | .. | 1 | 1 | 1 | 3 | 2 | 71 | .. | 71 | .. |
| Other forms of Tuberculosis | .. | 5 | 6 | 3 | 2 | .. | .. | 1 | 4 | 1 | .. | 2 | 1 | 1 | 1 | 3 | 2 | 16 | .. | 16 | .. |

SCARLET FEVER.

During the year 150 cases of scarlet fever were notified, an increase of 46 on the number notified during the previous year, the incidence of the disease being higher during the early part of the year. Cases occurred in all parts of the City, and there was no evidence of any local spread of infection.

82 of the patients, or 54.6 per cent., were removed to the Isolation Hospital.

1 death only of a resident was registered as being due to scarlet fever.

5 cases of this disease occurred at the Cumberland Infirmary, 2 of whom were patients who did not reside in the City.

3 children notified as suffering from diphtheria were found not to be suffering from the disease, but from scarlet fever.

2 return cases occurred.

Table showing notifications, cases isolated, and number of deaths from scarlet fever during the years 1919—1923.

| Year. | No. of cases notified. | No. of cases isolated in Hospital. | Average period in Hospital (days). | No. of return cases. | No. of deaths. | Deaths per 100 cases. |
|-------|------------------------|------------------------------------|------------------------------------|----------------------|----------------|-----------------------|
| 1919 | 41 | 25 | 34.3 | 0 | 2 | 4.9 |
| 1920 | 70 | 47 | 42.8 | 1 | 0 | 0.0 |
| 1921 | 79 | 57 | 43.5 | 0 | 1 | 1.2 |
| 1922 | 104 | 65 | 40.5 | 2 | 1 | 0.9 |
| 1923 | 150 | 82 | 41.7 | 2 | 1 | 0.6 |

DIPHTHERIA.

The number of cases of diphtheria notified was 87, compared with 64 in 1922.

10 deaths of residents were registered as being due to diphtheria.

The death-rate for this disease was 0.18 per 1,000 of the estimated population at all ages.

46, or 52.8 per cent., of the cases notified were removed to the Isolation Hospital.

In 20 instances the patient was subsequently found not to be suffering from diphtheria.

1 return case occurred.

Table showing notifications, cases isolated, and number of deaths from diphtheria during the years 1919—1923.

| Year. | No. of cases notified. | No. of cases isolated in Hospital. | No. of deaths. | Deaths per 100 cases. |
|-------|------------------------|------------------------------------|----------------|-----------------------|
| 1919 | 51 | 34 | 5 | 9.8 |
| 1920 | 35 | 20 | 2 | 5.7 |
| 1921 | 57 | 42 | 8 | 14.0 |
| 1922 | 64 | 48 | 2 | 3.1 |
| 1923 | 87 | 46 | 10 | 11.5 |

ANTI-DIPHTHERIA SERUM.

48 applications were made by medical practitioners for the free supply of anti-diphtheria serum, 448,000 units being supplied.

Table showing case mortality of Scarlet Fever and Diphtheria isolated in Hospital compared with Home Cases.

| Year. | SCARLET FEVER. | | | | DIPHTHERIA. | | | |
|-------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| | Hospital Cases. | | Home Cases. | | Hospital Cases. | | Home Cases. | |
| | No. of Cases Isolated. | Death-rate per 100 | No. of Cases Isolated. | Death-rate per 100 | No. of Cases Isolated. | Death-rate per 100 | No. of Cases Isolated. | Death-rate per 100 |
| 1919 | 25 | 8.0 | 16 | 0.0 | 34 | 11.7 | 17 | 5.9 |
| 1920 | 47 | 0.0 | 20 | 0.0 | 20 | 5.0 | 10 | 10.0 |
| 1921 | 57 | 1.7 | 22 | 0.0 | 42 | 11.9 | 15 | 20.0 |
| 1922 | 65 | 1.5 | 39 | 0.0 | 48 | 4.1 | 16 | 0.0 |
| 1923 | 82 | 0.0 | 68 | 1.4 | 46 | 6.5 | 41 | 17.0 |

SMALLPOX.

The district was free from Smallpox, and in no instance was notification received from another Authority that a person having been in contact with Smallpox was proceeding to Carlisle.

ENTERIC FEVER.

The district was free from enteric fever.

Table showing the average number of cases notified as enteric fever for 5-year periods, 1890—1919, and for the 4 years 1920—1923.

| Years. | Average for periods of 5 years. | Year. | Number of cases notified. |
|-----------|---------------------------------|-------|---------------------------|
| 1890-1894 | 21.2 | 1920 | 2 |
| 1895-1899 | 18.6 | 1921 | 1 |
| 1900-1904 | 12.6 | 1922 | ... |
| 1905-1909 | 3.2 | 1923 | ... |
| 1910-1914 | 3.8 | ... | ... |
| 1915-1919 | 1.4 | ... | ... |

No case of typhus or continued fever was notified.

MALARIA.

4 notifications relating to patients suffering from malaria were received. In each instance the patient had been abroad on active service, and had there been infected with the disease.

No case of malaria of indigenous origin was notified.

DYSENTERY.

No case of dysentery was notified.

PNEUMONIA.

53 notifications of cases of pneumonia were received during the year. In 5 instances the disease was stated to be of the acute influenzal type, and in 48 instances of the acute primary type.

The cases were investigated by the Health Visitors and, where not removed to Hospital, isolation carried out as far as possible, and where necessary advice given as to nursing and prevention of infection to others. 69 visits by the Health Visitors were made in this connection.

In 7 instances the patient was removed to Hospital.

In no instance did death take place of the cases notified as influenzal pneumonia, but in 12 other instances death occurred.

INFLUENZA.

7 deaths of residents were registered as due directly to influenza.

The age distribution of the deaths occurring among the 7 persons was as follows:—

| 0 to 1 | 1 to 2 | 2 to 5 | 5 to 15 | 15 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 to 75 | 75 to 85 | 85 and up- wards | Total |
|--------------|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|-------|
| 1 | .. | ... | ... | ... | ... | ... | ... | ... | 5 | 1 | ... | 7 |

INFLUENZA VACCINE.

No application was received during the year for a supply of influenza vaccine.

ENCEPHALITIS LETHARGICA.

3 cases of this disease were notified during the year, 2 of the patients being female adults, aged 57 years and 34 years respectively, the other being a little girl aged 6 years, who was the only one of the three resident in Carlisle. This little patient recovered, but is unfortunately totally blind.

With regard to the younger of the female adults, her death took place before the notification was received. From the history obtained it appears that she resided outside Carlisle, and whilst away from her home in another part of the county she became ill and was brought into Carlisle to be treated, where she died shortly after her arrival. With regard to the remaining case, this woman was admitted into the Cumberland Infirmary for treatment for her illness, from which she recovered.

CEREBRO-SPINAL FEVER.

No case of cerebro-spinal fever was notified during the year.

TETANUS, &c.

No case of tetanus was notified during the year, and no application was received for a supply of tetanus anti-toxin.

Particulars relating to puerperal fever, ophthalmia neonatorum, measles, whooping cough, chickenpox, and mumps, are given on pages 41, 55, and 56.

NOTIFICATION FEES.

The total amount paid in fees for notifications of all notifiable diseases during 1923 was £52 1s. 0d.

SUMMARY OF NURSING ARRANGEMENTS, HOSPITALS, AND OTHER INSTITUTIONS, AVAILABLE FOR THE DISTRICT.

Professional Nursing in the Home.

(a) *General.* None.

(b) *Infectious.* An annual retaining fee of £20 is paid by the Council to the Queen's Nurses of the Carlisle District Nursing Association, on condition that nursing facilities will be made available by them for such cases of puerperal fever, ophthalmia neonatorum, measles, whooping cough, and epidemic diarrhœa, as the Council may require them to attend. In addition, 1s. per visit is paid on account of such cases.

Midwives.

The Corporation does not employ midwives except at the Maternity Hospital, and does not pay any subsidy in respect of any midwife practising in the district.

Hospitals provided or subsidised by the Local Authority.

(1) *Tuberculosis.* The Corporation has a call upon 20 beds in the Blencathra Sanatorium, Threlkeld, Cumberland, in accordance with the agreement made between the Local Government Board, the Sanatorium Committee, and the Corporation.

(2) *Maternity.* A hospital has been provided by the Corporation at 3 George Street, Carlisle, containing 7 beds and cots.

(3) *Children.* There is a children's ward at the Cumberland Infirmary which provides for local requirements. The Corporation make a general contribution to the funds.

(4) *Fever.* General infectious diseases are sent to Crozier Lodge Isolation Hospital, Carlisle, 50 beds.

(5) *Smallpox.* The Corporation has provided a hospital for the isolation of smallpox a few miles out of the City, containing 12 beds.

(6) *Others.* None.

LIST OF EXISTING CLINICS AND INFANT WELFARE CENTRES IN THE CITY.

| Nature of Centre. | Address. | Accommodation. | Provided by. |
|---|--|---|---|
| Maternity and Child Welfare (Post-natal), once weekly | Maternity Hospital, 3 George Street | Waiting, Consulting, and Weighing Rooms | Carlisle Corporation |
| Maternity and Child Welfare (Ante-natal), once weekly | Do. | Waiting, Consulting, and Dressing Rooms | Do. |
| Infant Welfare Centre, weekly | West Walls | One Large Room | The Carlisle Mothers' and Babies' Welcome Society |
| Do. | St. John's Hall, South Street | Two Rooms | Do. |
| Do. | Caldewgate | One Room | Do. |
| Do. | Mac Innes Hall, Stanwix | Two Rooms | Do. |
| School Clinic, Minor Ailments, daily | 2 George Street | Three Rooms | Carlisle Corporation |
| Do. | Do. | Two Rooms | Do. |
| Do. | Do. | Two Rooms and Dark Room | Do. |
| Do. | Do. | Two Rooms | Do. |
| Tuberculosis Clinics, four times weekly | 1 George Street | Four Rooms and Laboratory | Do. |
| Veneral Clinic, five sessions weekly and intermediate treatment | Cumberland Infirmary | Three Rooms | Jointly by Carlisle Corporation and the Cumberland County Council |

Institutional Treatment for Unmarried Mothers, Illegitimate Infants, and Homeless Children.

With the exception of a small house provided by the Diocesan Association at 25 Myddleton Street, Carlisle, which makes provision for one or two expectant unmarried females temporarily, there is no institution providing these facilities except those of the Poor Law Authority.

Ambulance Facilities.

(a) For infectious cases. An ambulance is kept at the Isolation Hospital for the use of cases occurring in the City and the adjacent Rural District.

(b) For non-infectious and accident cases. A public ambulance, provided by the Corporation, for accidents and illness other than infectious disease is kept at the Fire Station, Spring Gardens Lane, for which the following charges are made:—

| | |
|--|--------------------------|
| For residents in the City ... | ... 7/6 for each removal |
| For not exceeding 2 miles outside the City ... | ... 10/- ,, |
| For beyond 2 miles and not exceeding 3 miles ... | ... 12/6 ,, |
| For each additional mile thereafter (limited to 20 miles outside the City) ... | ... 3/- per mile |

Between 9 p.m. and 7 a.m. 50 per cent. additional is charged.

In cases of accidents in the streets no charge is made for the removal of persons to the Infirmary or their homes.

BACTERIOLOGICAL WORK.

During the year 72 specimens of sputum have been examined for the presence of tubercle bacilli, in 23 of which the organism was found.

41 swabs from throats were submitted to the Clinical Research Association for examination for the Klebs Loëffler Bacillus, and in 19 instances the organism was found.

16 samples of milk were purchased from persons purveying milk within the City and submitted to the Public Health Laboratory, Manchester, for experimental inoculation, and in 14 instances no ill effect was observed in the health of the animals experimented upon. In 1 instance tubercle bacilli were found. Inoculation of animals from further samples of milk taken from the cows at the same farm gave no indication of the presence of tubercle bacilli. In the remaining instance the animal experimented upon died within 5 days of inoculation, and it was not possible to say positively that no tubercle bacilli were present. Inoculation of animals from further samples of milk taken from the cows at the same farm gave no indication of the presence of tubercle bacilli.

4 samples of City water, taken from a domestic tap, were submitted to the Public Health Laboratory, Manchester, for bacteriological examination. A tabulated summary of the reports is given on page 15.

A portion of a bottle of rennet, which was thought to have been responsible for several cases of sickness arising after the eating of junket prepared from it, was found to be free from organisms associated with disease and also from any form of chemical irritant.

TUBERCULOSIS.

During the year 129 new patients were examined by the Tuberculosis Officer, 122 at the Dispensary, Spring Gardens Lane, and 7 at the homes of patients who were too ill to attend the Dispensary. 64 of the patients were notified cases, 31 were contacts of whom 5 were subsequently notified by the Tuberculosis Officer himself, and 40 were suspects, of whom 1 was ultimately found to be suffering from Tuberculosis.

Of the notified cases, 30 were insured persons, 22 were children of school age, and 12 were outside either of these categories. 55 of the patients newly notified were suffering from pulmonary tuberculosis and 9 from non-pulmonary tuberculosis, the classification being as follows:—

| | | Insured Persons. | School Children. | Others. | Total. |
|---------------|-----|---------------------|---------------------|---------|--------|
| Stage I | ... | 5 | 14 | 4 | 23 |
| Stage II | ... | 15 | 3 | 4 | 22 |
| Stage III | ... | 8 | — | 2 | 10 |
| | | — | — | — | — |
| | | 28 | 17 | 10 | 55 |
| Non-Pulmonary | | 2 | 5 | 2 | 9 |
| | | — | — | — | — |
| | | 30 | 22 | 12 | 64 |
| | | — | — | — | — |

257 old patients were also under the supervision of the Tuberculosis Officer, 233 of whom were examined at the Dispensary, and 24 at their own homes, where the patient was either bedridden or not fit to be out of doors. 210 of these patients were notified cases, 14 were contacts, and 39 were suspects; out of the former of the two latter groups 1 person, and out of the latter 5 persons, were subsequently notified by the Tuberculosis Officer.

Of the old notified cases, 59 were insured persons, 37 were discharged soldiers, 68 were children of school age, and 46 belonged to other categories. The total number of patients under supervision during the year was therefore 386, the distribution of the cases being as follows:—Pulmonary tuberculosis, 246; non-pulmonary tuberculosis, 28 (viz., glands, 15; abdomen, 4; bones and joints, 4; other forms, 5); and suspected tuberculosis, 112.

The total number of attendances for examination at the Tuberculosis Dispensary during the year was 1352, of which number 980 were made by notified patients, 122 by contacts, and 250 by persons suspected to be suffering from tuberculosis. The number of visits by insured persons was 258, by discharged soldiers, 114, by school children, 464, and by others, 144; whilst 73 visits were made by the Tuberculosis Officer to the homes of patients too ill to attend the Dispensary.

37 patients received special treatment by means of Tuberculin (B.E.), the total number of injections given being 413.

4 cases were treated by means of X-ray, making 47 attendances for this purpose.

The total number of clinics held at the Tuberculosis Dispensary during the year was 208, the average number of patients attending per session being 6.5.

5,107 visits were made by the nurses to the homes of patients on the register, which at the end of the year contained 847 names.

8 thermometers and 3 sputum flasks were given to patients, and cod liver oil and malt was supplied free in 9 instances.

72 specimens of sputum were examined, and in 23 of these tubercle bacilli were found.

At the commencement of the year 16 patients were receiving treatment in Blencathra Sanatorium, and 36 other patients were admitted during the year, making a total of 52 who received this form of treatment. 41 patients were discharged, 2 died, and 9 were still under treatment on the 31st December. The condition of those discharged was as follows:—Much improved, 14; improved, 20; unchanged, 7. The total number of days spent in sanatorium by those who completed their treatment was 6,525, equal to an average duration of residential treatment of 151.8 days per patient.

On considering the various tables included in this section of the report, that dealing with the period of survival after notification calls for some comment. Of the 54 deaths from tuberculosis, 26 per cent. had not been notified by the medical practitioners in attendance, 1 case was dead when the notification was received, and 3 cases died within a week of notification. In one-third of the deaths from this disease therefore the sufferer had either not been notified or had died before or within a week of notification. Only 55.5 per cent. of the fatal cases survived more than three months after notification: 40.7 per

cent. did not survive more than six months, in 31.4 per cent. death took place not longer than nine months, and in only 26 per cent. did the patient survive more than one year after notification.

These figures indicate that so far as prevention is concerned the officers of the Local Authority are placed at a disadvantage, since a large number of patients are not notified until the disease has become very dangerous to others and the patient himself beyond the chances of recovery, an unfortunate condition which is still further aggravated by the absence of any kind of accommodation to which such disabled and infecting cases might be removed. Evidence of this unsatisfactory state of notification of tuberculosis is demonstrated by reference to the table of classification of the new cases, the only satisfactory feature of which is the reference to school children who are examined by the School Medical Officer and seen by the Tuberculosis Officer, in respect of which it will be observed that over 82 per cent. are first seen in an early and hopeful stage of the infection. With regard to the notification of insured persons, it is found that 82 per cent. of those examined at the Dispensary furnish the late or advanced type of case; no fewer than 28 per cent. belong to the latter category, for whom there is no hope of recovery, and out of 54 deaths, 24 were insured patients, one half of whom had died within six months of notification. The above figures apply solely to Carlisle, but there is much evidence that failure of some medical practitioners to notify the disease or to be guilty of some delay in sending in a notification is met with in many districts, and on account of the importance of the question I quote here a comparatively recent circular of the Minister of Health to medical practitioners in England and Wales:—

“ L. The attention of the Minister of Health is constantly being called to the failure of some medical

practitioners to notify cases of tuberculosis. In certain districts it has been found that more than 40 per cent. of the persons dying from tuberculosis had not been previously notified as suffering from that disease. The Minister views with so much concern this failure to perform a duty which has been incumbent upon all medical practitioners since 1913, that he has decided to communicate direct with every practitioner in England and Wales on the subject.

“ 2. Under the Public Health (Tuberculosis) Regulations, 1912, it is the statutory duty of every practitioner throughout the country, within 48 hours of his first becoming aware that any of his patients is suffering from tuberculosis, to notify the case to the Medical Officer of Health of the District in which the patient is residing, unless he has reasonable grounds for believing that the case has already been notified to that officer. In any case of doubt the practitioner should ascertain from the Medical Officer of Health whether the case has already been notified before deciding that it is not necessary for him to notify. The Public Health Act, 1896, provides substantial penalties for any wilful neglect or refusal to carry out the Regulations.

“ 3. The Minister fully appreciates that there are difficulties attending the notification of cases of tuberculosis which do not arise in the case of other infectious diseases, and that some persons suffering from tuberculosis do not consult a doctor until the disease is already in an advanced stage. He also recognises that in the early stages of tuberculosis it may be difficult to arrive at a definite diagnosis, and that practitioners are naturally reluctant to notify their patients as suffering from tuberculosis until that disease has been definitely diagnosed. The Minister thinks it well to point out that the Tuberculosis Regulations only require a practitioner to notify a case as soon as he becomes aware that the patient is suffering from tuberculosis. There is no obligation to notify a case in which the practitioner merely suspects the presence of tuberculosis. On the other hand, it is hardly necessary to draw attention to the importance,

in the interests of the patient, of arriving at a definite diagnosis in all doubtful cases as early as possible, and practitioners are aware that, under the tuberculosis schemes of local authorities, facilities are available for assistance in diagnosis, including the services of the Tuberculosis Officer for consultation.

“ 4. The Minister also recognises that in some instances a practitioner may hesitate to notify the case because he fears that the fact that the patient is suffering from tuberculosis may thus become known to the patient's employers or neighbours, or because the patient objects on the ground of possible inconvenience or of the supposed stigma attaching to a diagnosis of tuberculosis. But the Tuberculosis Regulations expressly require that every notification and every document relating to a person notified under the Regulations shall be regarded by the Medical Officer of Health, and by every person who has access thereto, as confidential, and the Minister is not aware of any case in which there has been a breach of this requirement.

“ 5. The prompt notification of all cases of tuberculosis is of importance in the interests of the community as well as of the patient. In this way only can full and early co-operation be secured between the medical practitioner, the Medical Officer of Health of the district, and the Tuberculosis Officer, in order that all possible steps may be taken to prevent the spread of infection, to discover other possible cases which have been in contact with the patient, and to ensure that the patient receives, to the fullest extent possible, the treatment best suited to his condition. If in any particular case the practitioner considers that the circumstances are such as to render it unnecessary or contrary to the interests of the patient for the home to be visited by these officers or their staff, it is open for him to arrange with the officers concerned for such visits to be dispensed with.

“ 6. The Minister feels confident, now that the matter has been brought clearly to the notice of medical practitioners, that there will be a more complete observance of the requirements of the Tuber-

culosis Regulations, and that Local Authorities will have no need to resort to legal proceedings to secure compliance with the Regulations.”

TREATMENT OF DISCHARGED SAILORS AND SOLDIERS.

37 discharged soldiers suffering from tuberculosis, admitted by the Ministry of Pensions to be attributable to or aggravated by service in the War, have attended the Dispensary during the year, making a total of 114 attendances; 2 of these pensioners died during the year.

1 pensioner was receiving treatment in Bleneathra Sanatorium on the 1st January, 1923, and was discharged during the year, after a period of residence of 279 days, his condition on discharge being improved.

2 tuberculous pensioners were receiving combined treatment and training at Englethwaite Tuberculosis Colony at the beginning of the year, and completed their training satisfactorily; both are now carrying on their trades and their health is good. 2 other pensioners were admitted to Englethwaite during the year and are still undergoing treatment and training.

1 pensioner completed his training in the Liverpool Sanatorium and was discharged during the year, his condition being satisfactory.

Distribution of the Deaths from Tuberculosis in the various Wards of the City, 1923.

| | Stanwix | Rickergate | Aglionby | Greystone | St. Nicholas | Currock | Denton Holme | St. Cuthbert's | Caldewgate | Newtown & Belle Vue | Carlisle |
|-------------------|---------|------------|----------|-----------|--------------|---------|-----------------|----------------|------------|------------------------|----------|
| Pulmonary ... | 4 | 4 | 2 | 5 | 3 | 4 | 3 | 4 | 6 | 5 | 40 |
| Non-Pulmonary ... | ... | 3 | 3 | 1 | 1 | ... | 1 | 2 | 2 | 1 | 14 |
| Totals | 4 | 7 | 5 | 6 | 4 | 4 | 4 | 6 | 8 | 6 | 54 |

Summary of Notifications of Tuberculosis from 31st December, 1922, to 29th December, 1923.
NOTIFICATIONS ON FORM A.

| | | Ages. | Number of Primary Notifications. | | | | | | | | | | | | Total Prim- ary Noti- fications. | Total Noti- fications on Form A. |
|---------------|---------|-------|----------------------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-----------------------|-----|--|--|
| | | | Ages. | | | | | | | | | | | | | |
| | | | 0-1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-35 | 35-45 | 45-55 | 55-65 | 65 & up- wards. | | | |
| Pulmonary | Males | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 31 |
| | Females | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 29 |
| Non-pulmonary | Males | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6 |
| | Females | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 |
| Totals | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 73 |

NOTIFICATIONS ON FORM B.

| | | Number of Primary Notifications. | | | | Total Noti- fications on Form B. |
|---------------|---------|-------------------------------------|------|-------|--------|--|
| | | 0-5 | 5-10 | 10-15 | Total. | |
| Pulmonary | Males | ... | ... | ... | ... | ... |
| | Females | ... | ... | ... | ... | ... |
| Non-pulmonary | Males | ... | ... | ... | ... | ... |
| | Females | ... | ... | ... | ... | ... |
| Totals | | ... | ... | ... | ... | ... |

NOTIFICATIONS ON FORM C.

| | | Poor Law Institutions. | | Sanatoria. |
|---------------|---------|---------------------------|---------|------------|
| | | Males | Females | |
| Pulmonary | Males | ... | ... | ... |
| | Females | ... | ... | ... |
| Non-pulmonary | Males | ... | ... | ... |
| | Females | ... | ... | ... |
| Totals | | ... | ... | ... |

Age and Sex distribution of New Cases and Deaths from Tuberculosis, 1923.

| Ages. | 0-1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-35 | 35-45 | 45-55 | 55-65 | 65 and over. | |
|-------------------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|--------------|-----|
| <u>New Cases.</u> | | | | | | | | | | | | |
| Pulmonary— | | | | | | | | | | | | |
| Male | ... | ... | 4 | 5 | 3 | 2 | 3 | 5 | 8 | 4 | ... | 1 |
| Female | ... | ... | 2 | 6 | 3 | 3 | 5 | 10 | 3 | 1 | 1 | 2 |
| Non-Pulmonary— | | | | | | | | | | | | |
| Male | .. | .. | 4 | ... | 2 | ... | 1 | ... | ... | ... | ... | ... |
| Female | .. | .. | 1 | 3 | 1 | 1 | 1 | 1 | ... | ... | ... | ... |
| <u>Deaths.</u> | | | | | | | | | | | | |
| Pulmonary— | | | | | | | | | | | | |
| Male | ... | .. | 1 | ... | ... | 1 | 5 | 2 | 9 | 2 | 2 | ... |
| Female | ... | ... | .. | ... | 1 | 2 | 2 | 7 | 3 | 1 | ... | 2 |
| Non-Pulmonary— | | | | | | | | | | | | |
| Male | ... | ... | 4 | 1 | ... | ... | 2 | 1 | 1 | ... | ... | ... |
| Female | ... | 1 | 1 | 2 | ... | ... | ... | ... | 1 | ... | ... | ... |

The following Table shows the period persons dying in 1923 survived after notification.

| | Not Notified | Died before Notification | Died within 7 days | Survived more than | | | | | | | | | |
|---------------|--------------|--------------------------|--------------------|--------------------|---------|----------|----------|----------|--------|----------|---------|---------|---------|
| | | | | 1 week | 1 month | 3 months | 6 months | 9 months | 1 year | 1½ years | 2 years | 3 years | 4 years |
| Pulmonary ... | 7 | ... | 1 | 2 | 3 | 8 | 5 | 2 | 3 | 2 | 5 | 1 | 1 |
| Non-Pulmonary | 7 | 1 | 2 | 1 | ... | ... | ... | 1 | ... | ... | 1 | ... | 1 |

Deaths from Tuberculosis, Influenza, and other Respiratory Diseases, 1919-1923.

| Year. | Pulmonary Tuberculosis. | Non-Pulmonary Tuberculosis. | Tuberculosis, all forms. | Influenza. | Other Respiratory diseases. |
|-------|-------------------------|-----------------------------|--------------------------|------------|-----------------------------|
| 1919 | 46 | 16 | 62 | 38 | 103 |
| 1920 | 36 | 15 | 51 | 28 | 119 |
| 1921 | 46 | 22 | 68 | 18 | 105 |
| 1922 | 50 | 14 | 64 | 55 | 136 |
| 1923 | 40 | 14 | 54 | 7 | 89 |

PUBLIC HEALTH (VENEREAL DISEASES) REGULATIONS, 1916.

Diagnosis and Treatment of Venereal Diseases.

During the year 217 persons residing in Carlisle, 147 of whom were males and 70 females, were under treatment or observation at the Clinic at the Cumberland Infirmary. This is a decrease of 12 persons upon the figure for the previous year.

105 patients were found to be suffering from syphilis, 4 from non-syphilitic chancre, 75 from gonorrhœa, and 33 from conditions other than venereal disease. 123 new patients attended for the first time during the year, as compared with 124 for the previous year.

1,262 attendances were made by these patients, a decrease of 256 on the figure for the previous year. In addition, 1,477 attendances were made by patients for intermediate treatment by irrigation, and 330 doses of arsenobenzol compounds were administered to patients. No serious case of arsenical dermatitis occurred.

CLINICS.

Clinics were held on the same days and at the same hours as in the previous year, viz., for women and children on Mondays, at 2-30 p.m., and Thursdays, at 5-30 p.m. The male clinics for syphilis were held on Wednesdays, at 2-30 p.m., and Thursdays, at 6 p.m.; and the male clinics for gonorrhœa on Wednesdays, at 6 p.m.

New cases were seen at any of the clinics.

ACCOMMODATION AT THE INFIRMARY.

In the early part of the year the alterations in the premises temporarily occupied were completed, and have

been found to be most satisfactory. In effecting the alterations the comfort and convenience of patients and staff have been most carefully considered.

With regard to the joint scheme, during the past year a total of 452 persons were treated at the two treatment centres, of whom 265 were seen for the first time, the remainder being carried over from the previous year. 73 of these were found not to be suffering from venereal disease, leaving 379. The figure for 1922 was 384.

In the number of new cases of syphilis (109) there was a decrease of 11, but there was an increase of 10 in the new cases of gonorrhœa (81).

| Areas in which Patients resided. | | | New Patients. | Total Attendances. |
|-------------------------------------|-----|-----|------------------|-----------------------|
| Carlisle | ... | ... | 123 | 2,739 |
| Cumberland | ... | ... | 127 | 1,376 |
| Dumfriesshire | ... | ... | 5 | 110 |
| Westmorland | ... | ... | 2 | 26 |
| Kent | ... | ... | 2 | 2 |
| London | ... | ... | 2 | 3 |
| Hull | ... | ... | 1 | 1 |
| Aberdeen | ... | ... | 1 | 1 |
| Holland | ... | ... | 2 | 2 |
| Total | | | 265 | 4,260 |

Return relating to all persons resident in the City of Carlisle who were treated at the Treatment Centre at the Cumberland Infirmary during the year ended the 31st December, 1923:—

| | Syphilis. | | Soft Chancre. | | Gonorrhœa. | | Conditions other than Venereal. | | Total. | |
|--|-----------|-----|---------------|-----|------------|-----|---------------------------------|-----|--------|-----|
| | M | F | M | F | M | F | M | F | M | F |
| 1. Number of persons who, on the 1st Jan., 1923, were under treatment or observation for | 39 | 23 | 1 | ... | 22 | 9 | ... | ... | 62 | 32 |
| 2. Number dealt with during the year for the first time and found to be suffering from | 26 | 17 | 3 | ... | 34 | 10 | 22 | 11 | 85 | 38 |
| Total—Items 1 and 2 | 65 | 40 | 4 | ... | 56 | 19 | 22 | 11 | 147 | 70 |
| 3. Number of persons who ceased to attend | | | | | | | | | | |
| (a) before completing the first course of treatment for | 6 | 6 | 2 | ... | 15 | 5 | ... | ... | 23 | 11 |
| (b) after one or more courses, but before completion of treatment for | 12 | 11 | ... | ... | ... | ... | .. | ... | 12 | 11 |
| (c) after completion of treatment, but before final tests as to cure of | 7 | 4 | ... | ... | 6 | 2 | ... | .. | 13 | 6 |
| 4. Number of persons transferred to other Treatment Centres after treatment for | 2 | 1 | ... | ... | ... | 2 | ... | ... | 2 | 3 |
| 5. Number of persons discharged after completion of treatment and observation for | 4 | 1 | 1 | ... | 8 | 4 | ... | ... | 13 | 5 |
| 6. Number of persons who, on the 1st Jan., 1924, were under treatment or observation for | 34 | 17 | 1 | ... | 27 | 6 | ... | .. | 62 | 23 |
| Total—Items 3, 4, 5 & 6 | 65 | 40 | 4 | ... | 56 | 19 | ... | ... | 125 | 59 |
| 7. Out-Patient attendances:— | | | | | | | | | | |
| (a) For individual attention by the Medical Officer | 440 | 242 | 5 | ... | 428 | 93 | 35 | 19 | 908 | 354 |
| (b) For intermediate treatment, e.g., irrigation, dressings, etc. | 7 | ... | ... | ... | 1469 | ... | 1 | ... | 1477 | ... |
| Total Attendances | 447 | 242 | 5 | ... | 1897 | 93 | 36 | 19 | 2385 | 354 |

Aggregate number of "In-patient days" of treatment given:—Nil.

Number of doses of Salvarsan-substitute administered in Out-patient Clinic:—330.

Examination of Pathological Material :—

| | For Detection of | | | For Wassermann |
|--|------------------|------------|------------------|----------------|
| | Spirochaetes. | Gonococci. | Other Organisms. | Re-action. |
| (a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre | 4 | 34 | ... | ... |
| (b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory ... | 2 | 11 | ... | 174 |

MATERNITY AND CHILD WELFARE.

During the past year 1,220 notifications of birth were received, 1,168 of which related to live births and 52 to still-births. 655 were notified by medical practitioners, 561 by midwives, and 4 by other persons. In 21 other instances failure to notify occurred.

HEALTH VISITORS.

The following is a summary of the visits paid by the Health Visitors of the Corporation :—

| | | | | |
|--|-----|-----|-----|--------|
| Total number of homes visited | ... | ... | ... | 13,249 |
| Primary visits in connection with the notification of births | ... | ... | ... | 1,176 |
| Re-visits in connection with the notification of births— | | | | |
| 0—1 year | ... | ... | ... | 4,903 |
| 1—2 years | ... | ... | ... | 3,374 |
| 2—3 years | ... | ... | ... | 3,310 |
| 3—4 years | ... | ... | ... | 3,001 |
| 4—5 years | ... | ... | ... | 1,697 |
| | | | — | 16,285 |
| Total number of routine visits to children | | | ... | 17,462 |
| Visits to boarded-out children | ... | ... | ... | 148 |
| Visits to expectant mothers— | | | | |
| Primary | ... | ... | ... | 212 |
| Re-visits | ... | ... | ... | 234 |
| | | | — | 446 |

Visits in connection with—

| | | | |
|---------------------------------------|-----|-----|-------|
| Deaths of children under 1 year | ... | ... | 85 |
| Ophthalmia Neonatorum | ... | ... | 44 |
| Diarrhœa | ... | ... | 92 |
| Bronchitis | ... | ... | 96 |
| Broncho-Pneumonia | ... | ... | 65 |
| Acute Primary or Influenzal Pneumonia | ... | ... | 69 |
| Measles | ... | ... | 1,579 |
| Whooping Cough | ... | ... | 483 |
| Chickenpox | ... | ... | 68 |
| Puerperal Fever | ... | ... | 3 |
| Other Conditions | ... | ... | 11 |

INSPECTION OF MIDWIVES.

In January, 1923, 18 midwives gave notice of intention to practise in the City, and on later dates 4 others notified their intention to practise, making a total of 22. 4 midwives left the City, leaving at the end of 1923 18 midwives on the register.

These midwives attended a total of 692 confinements.

1 case of puerperal fever occurred in the practice of a midwife.

Notices in accordance with the rules of the Central Midwives' Board were received in connection with the following conditions:—

| | | | |
|--|-----|-----|-----|
| Cases in which a midwife called for the assistance of a medical practitioner | ... | ... | 38 |
| Cases in which a midwife advised that medical help should be obtained | ... | ... | 102 |
| Notification of the intention to substitute artificial for breast feeding | ... | ... | 29 |
| Notification of still-births | ... | ... | 4 |
| Notification of having laid out a dead body | ... | ... | 4 |
| Notification of liability to be a source of infection | ... | ... | 3 |
| Notification of death of infant | ... | ... | 1 |

The circumstances in which medical help was either obtained or advised are given as follows:—

Condition of Mother—

| | | | | |
|------------------------------------|-----|-----|-----|----|
| Ante-natal | ... | ... | ... | 13 |
| Excessive vomiting | ... | ... | 1 | |
| Hæmorrhage | ... | ... | 9 | |
| Swelling of feet, hands, face, &c. | | | 2 | |
| Fits | ... | ... | 1 | |
| During labour | ... | ... | ... | 67 |
| Delayed labour | ... | ... | 42 | |
| Malpresentation | ... | ... | 11 | |
| Retained Secundines | ... | ... | 10 | |
| Varicose Veins | ... | ... | 3 | |
| Tumour of Vulva | ... | ... | 1 | |
| Post-natal | ... | ... | ... | 34 |
| Rupture of Perineum | ... | ... | 21 | |
| Hæmorrhage | ... | ... | 4 | |
| Rise of Temperature | ... | ... | 6 | |
| Weakness | ... | ... | 3 | |
| Condition of Child | ... | ... | ... | 26 |
| Feebleness | ... | ... | 5 | |
| Prematurity | ... | ... | 4 | |
| Deformity | ... | ... | 5 | |
| Conjunctivitis | ... | ... | 9 | |
| Dyspepsia | ... | ... | 1 | |
| Fits | ... | ... | 1 | |
| Rash | ... | ... | 1 | |

The following conditions are given as the reasons for the substitution of artificial feeding:—

By doctors' orders on account of—

| | | | | |
|-----------------------|-----|-----|-----|-------|
| Debility of mother | ... | ... | ... | 5 |
| Spina Bifida (infant) | ... | ... | ... | 1 |
| No definite reason | ... | ... | ... | 8 |
| | | | | <hr/> |
| | | | | 14 |
| | | | | <hr/> |

By midwives on account of—

| | | | | |
|--------------------------|-----|-----|-----|-------|
| Insufficient milk | ... | ... | ... | 3 |
| Debility of mother | ... | ... | ... | 4 |
| Inverted nipples | ... | ... | ... | 3 |
| Phthisis | ... | ... | ... | 1 |
| Eclampsia (Convulsions) | ... | ... | ... | 1 |
| Disinclination of mother | ... | ... | ... | 1 |
| Weakness of Infant | ... | ... | ... | 1 |
| Infant nursed out | ... | ... | ... | 1 |
| | | | | <hr/> |
| | | | | 15 |
| | | | | <hr/> |

Midwives were regularly inspected by visits at their own homes, and the necessary examinations of their outfits and registers have also been carried out. 31 routine and 20 special visits have thus been paid.

The following important matters in which midwives were concerned required special attention and have been recorded:—

| | | | | |
|--|-----|-----|-----|---|
| Failure of midwife to report to the Local Supervising Authority that she was attending a case of puerperal fever | ... | ... | ... | 1 |
| Instances in which midwives failed to state the reason for having obtained medical help | ... | ... | ... | 2 |
| Instances in which the Authority were of opinion that the midwife had failed to pay the full number of visits to her patient | ... | ... | ... | 3 |
| Instances in which a midwife used a designation contrary to the rules of the Central Midwives' Board | ... | ... | ... | 2 |

HOME NURSING.

Under the arrangement with the Carlisle District Nursing Association, the following visits were paid by the nurses of the Association:—

| | No. of Cases. | No. of Visits. |
|------------|------------------|-------------------|
| Pleurisy | 1 | 1 |
| Pneumonia | 4 | 40 |
| Stomatitis | 1 | 1 |
| | | <hr/> |
| | | 42 |
| | | <hr/> |

MATERNITY HOSPITAL.

187 patients received treatment in this institution, 22 of whom were admitted upon the request of medical practitioners.

5 deaths of mothers occurred, 1 being a patient who was admitted after delivery as suffering from puerperal phlebitis, who was found to have septicæmia. Of the other 4, 3 were very urgent cases, 2 of whom died shortly after admission.

In 3 instances the blood was submitted to the Wassermann test, and in each case the result was negative.

The following are also amongst the important particulars relating to the work of the Maternity Hospital:—

| | |
|--|-----|
| Remaining in Hospital on 31st December, 1922 ... | 7 |
| Number of cases admitted during the year ... | 180 |
| Total ... | 187 |

| | |
|--|-----------|
| Average duration of stay ... | 11.8 days |
| Number of cases delivered by midwives ... | 144 „ |
| Number of cases delivered by doctors ... | 25 „ |
| Total number of confinements ... | 169 „ |
| Number of cases treated ante-natally only ... | 11 „ |
| Number of cases treated during puerperium only | 7 „ |

Number of cases in which medical assistance was specially indicated:—

Mothers—

| | |
|------------------------|----|
| Before labour ... | 24 |
| Albuminuria ... | 8 |
| Eclampsia ... | 1 |
| Malpresentation ... | 7 |
| Hæmorrhage ... | 2 |
| Pelvic Contraction ... | 4 |

| | | | | |
|----------------------------------|-----|-----|-----|----|
| Cystitis | ... | ... | 1 | |
| Hyperemesis | ... | ... | 1 | |
| During labour | ... | ... | ... | 39 |
| Delayed labour | ... | ... | 18 | |
| Pelvic Contraction | ... | ... | 3 | |
| Accidental Hæmorrhage | ... | ... | 4 | |
| Placenta Prævia | ... | ... | 6 | |
| Prolapse of Cord | ... | ... | 2 | |
| Malpresentation | ... | ... | 3 | |
| Eclampsia | ... | ... | 3 | |
| After labour | ... | ... | ... | 37 |
| Rupture of Perineum | ... | ... | 22 | |
| Raised Temperature | ... | ... | 4 | |
| Post-partum Hæmorrhage | ... | ... | 3 | |
| Phlebitis | ... | ... | 2 | |
| Albuminuria | ... | ... | 3 | |
| Eclampsia | ... | ... | 1 | |
| Uræmia | ... | ... | 1 | |
| Paralysis | ... | ... | 1 | |
| For Infant | ... | ... | ... | 3 |
| Feebleness | ... | ... | 3 | |
| Number of maternal deaths | ... | ... | ... | 5 |
| Causes— | | | | |
| Concealed Accidental Hæmorrhage | | | 1 | |
| Eclampsia | ... | ... | 1 | |
| Septicæmia | ... | ... | 1 | |
| Uræmia and Secondary Post-partum | | | | |
| Hæmorrhage | ... | ... | 1 | |
| Heart Failure | ... | ... | 1 | |
| Number of fetal deaths | ... | ... | ... | 21 |
| Still-births | ... | ... | ... | 16 |
| Causes— | | | | |
| Eclampsia | ... | ... | 2 | |
| Malpresentation | ... | ... | 1 | |
| Accidental Hæmorrhage | ... | ... | 4 | |
| Contracted Pelvis | ... | ... | 1 | |
| Placenta Prævia | ... | ... | 3 | |

| | | | | |
|---------------------|-----|-----|-----|---|
| Uræmia | ... | ... | 2 | |
| Cause unknown | ... | ... | 3 | |
| Died before 10 days | ... | ... | ... | 5 |
| Causes— | | | | |
| Prematurity | ... | ... | 4 | |
| Albuminuria | ... | ... | 1 | |

Conditions necessitating the substitution of artificial feeding for breast feeding:—

| | | | | |
|-------------------|-----|-----|-----|---|
| Insufficient Milk | ... | ... | ... | 8 |
| Albuminuria | ... | ... | ... | 1 |
| Debility | ... | ... | ... | 3 |
| Defect of Nipples | ... | ... | ... | 1 |
| Twins | ... | ... | ... | 4 |

ANTE-NATAL CLINIC.

The number of attendances made at the clinic for expectant mothers was 516, and among the conditions requiring medical attention or advice were the following:—Heart disease, bronchitis, anæmia, constipation, hyperemesis, dyspepsia, diarrhœa, defective teeth, chronic nephritis, albuminuria, varicose veins, lordosis, hyperthyroidism, cracked nipples, mastitis, uterine prolapse, pelvic contraction, malpresentation, hæmorrhage, leucorrhœa, and hydramnios.

INFANT CONSULTATIONS.

At the clinics for children up to five years of age, there were 816 attendances (a slight decrease on the number for 1922, but almost twice as many as in 1921), during which treatment or advice was found to be necessary for the following conditions:—Malnutrition, injudicious feeding, diarrhœa, dyspepsia, constipation, worms, hernia, rickets, bronchitis, whooping cough, pneumonia, seborrhœa, eczema, impetigo, pruritus, dacrocystitis, blepharitis, conjunctivitis, otorrhœa, adenoids, phimosis, hypospadias, tongue-tie, cleft palate, talipes, adenitis, &c.

VOLUNTARY AGENCY.

Babies' Welcomes and Schools for Mothers.

The total number of sessions held at the four voluntary centres, viz., West Walls, Botchergate, Caldewgate, and Stanwix, was 162, at which 7,218 attendances were made as follows:—

| | | | | | |
|---------|-----|-----|-----|-----|-------|
| Babies | ... | ... | ... | ... | 3,777 |
| Mothers | ... | ... | ... | ... | 3,441 |

The number of children who attended for the first time was 182, whilst 3,595 visits were made by those who had attended before. 1,531 visits related to children under one year of age, and 2,064 to those between one and five years.

The number of first attendances of mothers was 136, the number of attendances of those who had previously attended being 3,305.

Classes in connection with the teaching of the following subjects were held and addresses given as follows:—

| | | | |
|-------------|-----|-----|--------------|
| Mothercraft | ... | ... | 72 addresses |
| Sewing | ... | ... | 8 addresses |
| Hygiene | ... | ... | 27 addresses |
| Cookery | ... | ... | 12 addresses |

HEALTH VISITOR.

| | | | |
|------------------------------------|-----|-----|-------|
| Total number of homes visited | ... | ... | 2,316 |
| Primary visits | ... | ... | 643 |
| Re-visits to children— | | | |
| 0—1 year | ... | ... | 1,445 |
| 1—2 years | ... | ... | 212 |
| 2—3 years | ... | ... | 394 |
| 3—4 years | ... | ... | 266 |
| 4—5 years | ... | ... | 238 |
| | | — | 2,555 |
| Total number of visits to children | ... | ... | 3,198 |

Visits to expectant mothers—

| | | | | | |
|---|-----|-----|-----|-----|-----|
| Primary | ... | ... | ... | ... | 8 |
| Re-visits | ... | ... | ... | ... | 6 |
| Number of Attendances at Babies' Welcomes ... | | | | | 107 |

The Assistant Medical Officer for Maternity and Child Welfare visited one of the Welcomes each week, making one visit to each of the Welcomes once a month. As in former years, on the occasion of her visits to the Welcomes, she addressed the mothers on some appropriate subject, emphasising its aspect in relation to the health of children.

FREE PROVISION OF MILK.

During the year 2,172 gallons of fresh milk were supplied to 152 families for the purpose, principally of assisting the feeding of infants, and in a few instances to nursing mothers. Previous to supplying the milk careful investigation of the circumstances was made in each instance.

STILL-BIRTHS.

The number of still-births notified during the year was 52, or 14 less than the number notified in 1922. Of this number 8 were notified by midwives, concerning which the following particulars are available:—3 were full-time pregnancies and 5 were premature; of the 3 full-time still-births, 2 were macerated foetuses, and 1 complication at labour; of the 5 premature still-births, 3 were macerated foetuses and 2 complications at labour.

It will be observed that in the great majority of the cases the cause of the still-birth was unascertainable, but in a number of instances information suggestive of a history of ante-partum hæmorrhage was obtained.

The bodies of 50 still-born children were given burial in the Carlisle Cemetery.

The illegitimate still-births, numbering 7, comprised 11.6 per cent. of the total illegitimate births, viz., the illegitimate births registered together with the illegitimate still-births notified.

The legitimate still-births, numbering 45, comprised 3.8 per cent. of the total legitimate births, viz., the legitimate births registered together with the legitimate still-births notified.

Of the 1,181 children born alive, 53, or 4.5 per cent., were illegitimate; whilst of the 52 children born dead, 7, or 13.4 per cent., were illegitimate.

Table showing certain particulars regarding the 52 still-births.

| | | Legitimate. | Illegitimate. | Male. | Female. | Full Time. | 8 Months. | 7 Months or less. |
|------------------------------|--------|-------------|---------------|-------|---------|------------|-----------|-------------------|
| | Total. | 45 | 7 | 29 | 23 | | | |
| Maternal Conditions— | | | | | | | | |
| Albuminuria | 2 | 2 | 0 | 0 | 2 | 0 | 1 | 1 |
| Eclampsia | 2 | 1 | 1 | 1 | 1 | 0 | 1 | |
| Ante-partum Hæmorrhage... | 9 | 8 | 1 | 6 | 3 | 0 | 4 | 5 |
| Syphilis | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Strain or Accident | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Delayed Labour | 5 | 5 | 0 | 4 | 1 | 5 | 0 | 0 |
| Instrumental Delivery | 7 | 7 | 0 | 4 | 3 | 7 | 0 | 0 |
| Malpresentation | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 |
| Malformation of Child | 2 | 1 | 1 | 1 | 1 | 2 | 0 | 0 |
| Prolapse of Cord | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Marked Prematurity | 4 | 4 | 0 | 0 | 4 | 0 | 0 | 4 |
| No cause ascertained | 14 | 12 | 2 | 8 | 6 | 11 | 3 | 0 |
| No information available ... | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |

INFANT MORTALITY.

The total number of deaths of infants under one year was 103; the number of deaths of residents was 98, which provides a nett infant mortality rate of 82.9 per 1,000 of the registered births. This figure is practically the same as in 1922. Correcting for variation by adopting the method suggested by the Registrar-General, viz., taking as a denominator the sum of 70 per cent. of the current year's births and 30 per cent. of the births of the previous year, the infant mortality rate for 1923 is 81.2 per 1,000 births registered.

As during 1922, the chief factor in the production of a low infant mortality rate for the year was the absence of any large outbreak of diarrhœal disease, which would be very materially contributed to by the coolness of the summer throughout, which was coincident with a larger rainfall and also an increase in the number of days upon which rain fell.

The number of deaths due to diarrhœa amongst infants up to one year was 7.6 per 1,000 registered births, as compared with 5.5 per 1,000 registered births in 1922, and with 22.1 per 1,000 registered births in 1921. There was also a slight fall in the number of deaths from tuberculosis, and a noticeable decrease in the number of deaths from influenza and from accidents.

The mortality rate for infants under four weeks was a little higher than during 1922. No fewer than 19 children died before they were a day old, 36 before they were one week old, and 40 before the fourteenth day. The chief cause of these early deaths was prematurity of birth, which was responsible for 28.0 deaths per 1,000 of the registered births, as compared with 17.4 per cent. in 1922. Against this increase in the number of premature births, however, may be set off a decrease in the number of stillbirths, viz., from 66 in 1922 to 52 in 1923.

INFANT MORTALITY,

with deaths from stated causes, at various ages and in various seasons, of children under one year of age.

| CAUSE OF DEATH. | AGE. | | | | | | | MONTH. | | | | | | | | | | | | Total Deaths under One Year. | | |
|-------------------------------|---------------|------------|------------|------------|----------------------|---------------------------|------------------------------|------------------------------|-------------------------------|----------|-----------|--------|--------|------|-------|-------|---------|------------|----------|------------------------------|-----------|-----------|
| | Under 1 Week. | 1-2 Weeks. | 2-3 Weeks. | 3-4 Weeks. | Total under 4 Weeks. | 4 Weeks & under 3 Months. | 3 Months and under 6 Months. | 6 Months and under 9 Months. | 9 Months and under 12 Months. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | | November. | December. |
| All Causes. | 36 | 4 | 5 | 2 | 47 | 13 | 9 | 17 | 10 | 6 | 8 | 21 | 7 | 10 | 11 | 3 | 2 | 4 | 12 | 3 | 9 | 96 |
| { Whooping Cough | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 |
| { Influenza .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| { Measles .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 2 | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Tuberculosis (all forms) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Status Lymphaticus | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Bronchitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| { Pneumonia (all forms) | .. | .. | .. | .. | .. | .. | 3 | 4 | 3 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 3 | .. | 1 | 1 | 1 | 11 |
| { Enteritis .. | .. | .. | .. | 1 | 1 | 2 | 3 | 1 | 2 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 9 |
| { Gastritis .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Hernia (post operative shock) | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Convulsions | 2 | .. | .. | .. | 2 | .. | .. | 2 | 1 | .. | .. | .. | 1 | 1 | 1 | .. | .. | 1 | .. | .. | .. | 1 |
| Prematurity | 23 | 4 | 3 | 1 | 31 | 4 | .. | .. | .. | 3 | 2 | 6 | 4 | 3 | 4 | 1 | .. | 1 | 10 | .. | .. | 5 |
| { Congenital Defects | 5 | .. | 1 | .. | 6 | 2 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | 1 | 1 | 3 | .. | 8 |
| Malignant Jaundice | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Atrophy, Debility & Marasmus. | 2 | .. | .. | .. | 2 | 1 | .. | 3 | .. | .. | .. | 1 | .. | .. | 1 | 1 | .. | .. | .. | 3 | .. | 6 |
| Cerebral Hæmorrhage | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 |
| Other Causes | 4 | .. | .. | .. | 4 | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 4 |
| Totals | 36 | 4 | 5 | 2 | 47 | 13 | 9 | 17 | 12 | 6 | 8 | 21 | 7 | 10 | 11 | 3 | 3 | 4 | 12 | 3 | 10 | 98 |

Rates of Mortality among Infants at various ages, and from the principal causes, per 1,000 births.

| Year | Nett Infant Mortality Rate. | AGES. | | | | | CAUSES. | | | | | |
|------|-----------------------------|---------------|----------------------------|-----------------------------|-----------------------------|------------------------------|------------------|------------------------------|---|-------------------------|--------------------------|----------------|
| | | Under 4 Weeks | 4 Weeks and under 3 Months | 3 Months and under 6 Months | 6 Months and under 9 Months | 9 Months and under 12 Months | Not Preventable. | | | Preventable. | | |
| | | | | | | | Premature Birth | Atrophy, Debility & Marasmus | Congenital Malformations and Atelectasis. | Diarrhoea and Enteritis | Bronchitis and Pneumonia | Whooping Cough |
| 1909 | 123.6 | 47.9 | 26.1 | 20.9 | 14.8 | 13.9 | 21.7 | 17.4 | 7.0 | 20.9 | 13.1 | 4.4 |
| 1910 | 109.1 | 41.9 | 19.1 | 21.0 | 15.7 | 11.4 | 28.8 | 13.1 | 5.2 | 12.2 | 14.8 | 4.4 |
| 1911 | 145.0 | 45.0 | 27.0 | 27.0 | 25.2 | 20.8 | 18.0 | 12.6 | 4.5 | 37.9 | 26.1 | 9.0 |
| 1912 | 102.4 | 42.0 | 15.8 | 16.6 | 17.5 | 10.5 | 15.8 | 15.8 | 9.6 | 9.6 | 21.9 | 6.1 |
| 1913 | 127.1 | 49.8 | 17.2 | 27.5 | 19.0 | 13.7 | 28.4 | 12.9 | 6.0 | 19.0 | 18.0 | 3.4 |
| 1914 | 122.4 | 48.0 | 25.6 | 21.5 | 15.7 | 11.6 | 19.8 | 15.7 | 5.6 | 20.7 | 18.2 | 5.8 |
| 1915 | 144.3 | 51.2 | 30.2 | 26.8 | 14.3 | 21.8 | 30.2 | 12.6 | 5.9 | 15.9 | 20.1 | 10.1 |
| 1916 | 101.5 | 47.1 | 13.6 | 16.3 | 15.4 | 9.1 | 27.2 | 7.3 | 8.1 | 17.2 | 14.5 | 0.0 |
| 1917 | 106.5 | 39.4 | 16.1 | 23.3 | 15.2 | 12.7 | 20.6 | 7.2 | 10.8 | 24.2 | 10.7 | 1.8 |
| 1918 | 126.8 | 38.7 | 17.4 | 26.1 | 30.0 | 14.5 | 22.3 | 10.6 | 4.8 | 14.5 | 25.2 | 19.4 |
| 1919 | 107.9 | 45.9 | 17.8 | 18.8 | 13.1 | 12.3 | 19.7 | 22.5 | 9.4 | 13.1 | 20.6 | 0.0 |
| 1920 | 80.0 | 30.2 | 13.4 | 19.3 | 10.5 | 7.0 | 16.1 | 11.9 | 9.1 | 8.6 | 13.3 | 3.5 |
| 1921 | 105.3 | 38.2 | 17.5 | 23.7 | 16.8 | 9.1 | 11.4 | 17.5 | 9.1 | 22.1 | 13.7 | 2.3 |
| 1922 | 81.2 | 35.5 | 11.0 | 14.2 | 7.9 | 12.6 | 17.4 | 8.7 | 6.3 | 5.5 | 15.8 | 2.4 |
| 1923 | 82.9 | 39.7 | 11.0 | 7.6 | 14.3 | 10.1 | 29.6 | 5.0 | 6.7 | 7.6 | 11.8 | 0.8 |

Infant Mortality Rates for the various Wards, 1918-1923.

| Year | Stanwix & Etterby | Rickergate | Aglionby | Greystone | St. Nicholas | Currock | Denton Holme | St. Cuthbert's | Caldewgate | Newtown & Belle Vue | Carlisle |
|------|-------------------|------------|----------|-----------|--------------|---------|--------------|----------------|------------|---------------------|----------|
| 1918 | 108.7 | 141.2 | 135.4 | 101.7 | 94.9 | 93.8 | 125.0 | 193.3 | 156.2 | 97.2 | 126.8 |
| 1919 | 81.6 | 97.8 | 123.3 | 83.9 | 125.0 | 65.4 | 160.6 | 119.0 | 115.1 | 65.8 | 107.9 |
| 1920 | 46.5 | 77.5 | 54.3 | 100.0 | 68.6 | 57.4 | 81.6 | 113.2 | 87.0 | 78.4 | 80.0 |
| 1921 | 23.8 | 150.7 | 91.7 | 174.6 | 86.9 | 62.0 | 105.2 | 62.5 | 158.4 | 56.8 | 105.3 |
| 1922 | 50.8 | 47.6 | 84.0 | 75.7 | 102.9 | 90.9 | 98.7 | 65.7 | 78.5 | 112.5 | 81.2 |
| 1923 | 163.2 | 79.6 | 64.0 | 82.6 | 77.5 | 44.9 | 73.0 | 64.1 | 141.0 | 107.6 | 82.9 |

INFANT MORTALITY IN RELATION TO THE MODE OF FEEDING.

The following table shows the deaths of infants under one year in relation to the mode of feeding:—

| MODE OF FEEDING. | Number so Fed. | | | Number of Deaths. | | | Mortality Rate per 1,000 so fed. |
|--|----------------|---------------|--------|-------------------|---------------|--------|-------------------------------------|
| | Legitimate. | Illegitimate. | Total. | Legitimate. | Illegitimate. | Total. | |
| | | | | | | | |
| Breast | 858 | 28 | 886 | 30 | 0 | 30 | 33.8 |
| Partly Breast and partly Bottle | 117 | 10 | 127 | 17 | 1 | 18 | 141.7 |
| Bottle— | | | | | | | |
| (1) Boat-shaped | 115 | 9 | 124 | 14 | 0 | 14 | 112.9 |
| (2) Tube bottle | 4 | 0 | 4 | 1 | 0 | 1 | 250.0 |
| Debilitated Infants— | | | | | | | |
| (1) Spoon-fed | 10 | 0 | 10 | 10 | 0 | 10 | 1,000.0 |
| (2) Unable to be fed | 22 | 5 | 27 | 19 | 5 | 24 | 888.8 |
| No information re feeding | 27 | 3 | 30 | 4 | 1 | 5 | 166.6 |

Table showing the Death-rate per 1,000 infants under 1 year, classified according to the Method of Feeding,
1914—1923.

| Mode of Feeding. | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 10 years. | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------|----------------------------|-------------------------------|
| | | | | | | | | | | | Total No. of Children. | Total No. of Deaths. | Average Mortality Rate. |
| Total infant mortality rate ... | 122.4 | 144.3 | 101.5 | 106.5 | 126.8 | 107.9 | 80.0 | 105.3 | 81.2 | 82.9 | 11893 | 1242 | 104.4 |
| Mortality rate for breast-fed infants .. | 58.3 | 7.49 | 4.43 | 25.3 | 49.6 | 44.2 | 35.1 | 39.6 | 38.4 | 33.8 | 9365 | 412 | 43.9 |
| Mortality rate for infants partly fed on breast and partly on bottle ... | 400.0 | 500.0 | 133.3 | 515.1 | 122.2 | 378.4 | 171.7 | 407.7 | 152.0 | 141.7 | 709 | 171 | 241.1 |
| Mortality rate for infants fed by bottle | 476.6 | 612.0 | 428.6 | 324.3 | 520.4 | 230.3 | 209.8 | 229.2 | 212.5 | 117.1 | 1100 | 352 | 320.0 |

INFANT MORTALITY AND RAINFALL.

| Year. | Rainfall in Inches. | Number of days on which rain fell. | Infant Mortality. |
|-------|---------------------|------------------------------------|-------------------|
| 1909 | 33·13 | 162 | 123·6 |
| 1910 | 29·64 | 197 | 110·0 |
| 1911 | 30·20 | 181 | 145·0 |
| 1912 | 30·01 | 217 | 102·4 |
| 1913 | 27·53 | 194 | 127·1 |
| 1914 | 28·31 | 201 | 122·4 |
| 1915 | 28·28 | 183 | 144·3 |
| 1916 | 38·97 | 228 | 101·5 |
| 1917 | 29·13 | 176 | 106·5 |
| 1918 | 33·65 | 190 | 126·8 |
| 1919 | 25·21 | 191 | 107·9 |
| 1920 | 32·11 | 211 | 80·0 |
| 1921 | 29·83 | 205 | 105·3 |
| 1922 | 28·55 | 209 | 81·2 |
| 1923 | 36·53 | 231 | 82·9 |

ILLEGITIMACY.

The number of illegitimate births registered was 53, or 44.5 per 1,000 registered births, being 14.7 per 1,000 less than the figure for 1922. The number of deaths amongst these children was 6, or 113.2 per 1,000 illegitimate births. The deaths of legitimate children numbered 92, or 81.4 per 1,000 legitimate births. The Health Visitors paid 148 visits to boarded-out children.

PUERPERAL FEVER.

During the year 4 notifications relating to puerperal fever were received, and in 1 instance the condition was fatal. In 2 instances the condition followed instrumental deliveries, whilst in connection with the remaining two the confinement was normal.

OPHTHALMIA NEONATORUM.

12 cases of ophthalmia neonatorum were notified, or 10 fewer than in 1922, 12 less than in 1921, and 44 less than in 1920. In one of these cases the discharge was not purulent; in 10 cases both eyes were affected, and in 2 cases only one eye was affected. 7 of the cases were notified by medical practitioners, 4 by midwives, and 1 by both doctor and midwife. In no case was there any permanent damage to the eye.

In connection with this condition the Health Visitors of the Corporation paid 49 visits to affected babies in order that, if appropriate treatment were not being carried out, arrangements could be made for treatment.

In 10 instances the condition was treated at home, and the remaining 2 at the Out-patient Department of the Cumberland Infirmary.

| CASES. | | | Vision un-impaired | Vision impaired | Total Blindness. | Deaths during treatment. | Remarks. |
|-----------|----------|--------------|--------------------|-----------------|------------------|--------------------------|----------|
| Notified. | Treated. | | | | | | |
| | At Home. | In Hospital. | | | | | |
| 12 | 12 | Nil. | 12 | Nil. | Nil. | Nil. | |

INFECTIOUS DISEASES.

The Health Visitors paid 2,130 visits to cases of zymotic diseases among children up to five years of age, apart from their visits to children suffering from gastro-enteritis and ophthalmia neonatorum.

DIARRHŒA.

There were 15 deaths from diarrhœa during the year. The following table shows the age incidence:—

| Age. | | | | No. of deaths. | |
|---------------|-----|-----|-----|----------------|----|
| 0—1 year | ... | ... | ... | ... | 9 |
| 1—2 years | ... | ... | ... | ... | 1 |
| 2—5 years | ... | ... | ... | ... | 1 |
| 5—15 years | ... | ... | ... | ... | 0 |
| 15—25 years | ... | ... | ... | ... | 0 |
| 25—45 years | ... | ... | ... | ... | 0 |
| 45—65 years | ... | ... | ... | ... | 3 |
| Over 65 years | ... | ... | ... | ... | 1 |
| | | | | | — |
| | | | | | 15 |
| | | | | | — |

POLIOMYELITIS.

No notification relating to poliomyelitis was received during the year.

DEATHS AMONG CHILDREN AGED 1—5 YEARS.

83 deaths occurred among children aged 1—5 years from causes detailed hereunder:—

| | | | | |
|----------------------------|-----|-----|-----|----|
| Infectious Diseases | ... | ... | ... | 47 |
| Tubercular Diseases | ... | ... | ... | 6 |
| Respiratory Diseases | ... | ... | ... | 18 |
| Gastro-intestinal Diseases | ... | ... | ... | 4 |
| Violence | ... | ... | ... | 1 |
| Other Diseases | ... | ... | ... | 7 |
| | | | | — |
| | | | | 83 |
| | | | | — |

HYGIENE OF PLACES OF PUBLIC ENTERTAINMENT.

The visits made in this connection will be found in the Sanitary Inspector's Report, page 79.

REPORT OF THE VETERINARY INSPECTOR.

During the year 188 newly-purchased cows were examined in the several byres of the City, amongst which the following conditions were found:—

| | | | | |
|----------------------|-----|-----|-----|-------|
| Disease of the Womb | ... | ... | ... | 2 |
| Disease of the Udder | ... | ... | ... | 2 |
| | | | | <hr/> |
| | | | | 4 |
| | | | | <hr/> |

1 animal was tested with tuberculin, a characteristic re-action being obtained. These 4 animals were returned to the sellers.

The bovine animals exposed for sale at the Sands Cattle Market, and also at the Auction Marts, were examined, a total of 48,321 examinations being made.

The Auction Marts were visited each Monday in the year, and 12,384 pigs were examined.

141,082 sheep were also examined during the year.

2 carcasses of beef were examined at the Public Abattoir, and were certified as unfit for human consumption.

A total of 4,164 examinations of milk cows were made in the several byres of the City, in order to ascertain the presence of disease likely to affect the milk supply, in the course of which the following conditions were found:—

| | | | | |
|------------------------------|-----|-----|-----|-------|
| Inflammation of Udder | ... | ... | ... | 1 |
| Acute Pulmonary Tuberculosis | ... | ... | ... | 1 |
| Septic Poisoning | ... | ... | ... | 1 |
| Gastric Derangement | ... | ... | ... | 3 |
| Milk Fever | ... | ... | ... | 3 |
| | | | | <hr/> |
| | | | | 9 |
| | | | | <hr/> |

The animal suffering from acute pulmonary tuberculosis died, and the milk from the remaining 8 was destroyed until convalescence was established.

The Corporation horses, 20 in number (including the one employed at the Cemetery), have been under close observation, and have been free from serious illness during the year.

On February 15th 2 pigs died at Fusehill Workhouse; I found the causes of death to be as follows:—

| | | | |
|----------------------------------|-----|-----|---|
| Septic Pericarditis and Pleurisy | ... | ... | 1 |
| Pneumonia | ... | ... | 1 |

On February 23rd I received notice of suspected swine fever at premises within the City Boundary; the matter was immediately reported to the Ministry of Agriculture and Fisheries.

ANIMALS (LANDING FROM IRELAND) ORDER, 1922.

I have made 6,703 examinations of animals detained under the provisions of the above Order.

14 cattle were removed in contravention of the Order. The owner was prosecuted and fined £25 and costs.

On the 17th June an Irish heifer died suddenly. I made a post-mortem examination and found the cause of death to be pleurisy, caused by injury during transit.

On the 4th September the Town Clerk forwarded to me a telegram from the Ministry of Agriculture and Fisheries that all Irish cattle recently arrived were to be immediately examined. On the following morning I examined all the Irish animals in the City and found them free from disease.

On account of the outbreak of Foot and Mouth Disease, the Minister of Agriculture and Fisheries issued instructions as to the inspection of all live stock exposed for sale in the City markets.

On 31st August I was informed that Foot and Mouth Disease had broken out near Preston. As 14 dairy cattle had been sent from Preston to a Carlisle Auction the previous day, I was ordered to see these cattle, all of which I found to be free from disease.

On 19th July I visited a farm on the outskirts of the City and examined a herd of 15 dairy cows; 2 of the number had slight indurations of the udder. Samples of milk were taken from the 2 animals in question and were submitted for bacteriological and biological examination. The tubercle bacillus was not found in either sample.

On 8th November 477 sheep which had been in contact with animals in Stirlingshire suffering from Foot and Mouth Disease arrived in Carlisle. Upon investigation I found that all the sheep had been slaughtered immediately on their arrival.

On 23rd November the Ministry issued a standstill Order over the greater part of England and Scotland, including this area. Animals were accordingly held up as follows:—N.E.R. Cattle Dock, 185 sheep, 1 bull, and 1 cow; Citadel Station, 1 calf, 1 pig, and 1 goat; L. & N.W.R. Cattle Dock, 150 cattle and 113 pigs.

I examined all the above stock. 2 pigs died at the L. & N.W. Railway Cattle Dock, suspected to be due to Foot and Mouth Disease; the deaths were subsequently found not to be due to this disease. The remaining 111 pigs were slaughtered at the Public Slaughter-houses, and specially examined for symptoms of Foot and Mouth Disease, but were found to be free from this disease. 1 carcase was affected with swine erysipelas and was destroyed.

On 19th November I examined a bullock suspected to be suffering from Foot and Mouth Disease, but found the animal dying from septic pneumonia.

On 27th December I was informed that a heifer was ailing at the Home Farm, Botcherby. On proceeding to the farm and making an examination of a white heifer

I found her to be suffering from Foot and Mouth Disease. The Ministry's Inspector subsequently confirmed my diagnosis.

On 26th November, at the request of the Chief Constable, I examined 14 sheep that had been exposed for sale in Newcastle Market the day Foot and Mouth Disease broke out there. On arrival at the farm I found these 14 sheep had been mixed with 74 others, and all were grazing in a field together with 9 cattle. Notices were served upon the owners to detain the animals for 21 days, and these I kept under observation for the same period.

On 12th December I received notice from the Chief Constable that a sheep was suspected to be affected with sheep scab. I examined 22 ewes; scrapings of the skins were examined and were found to be negative.

On 5th May I examined a gelding reported to be suffering from parasitic mange. Upon microscopical examination the specific parasite was not found, and on the 14th May I examined 13 sheep and 6 lambs in the Infirmary field. 2 ewes were in a grossly neglected condition, and the owner was prosecuted and fined.

HOUSING.

Up to the end of the year the total number of houses for the erection of which the Corporation had received the sanction of the Ministry of Health was 408, 160 relating to the parlour type and 248 to the non-parlour type of house, to be provided as follows:—Denton Street, 24; Boustead's Grassing, 32; Stanwix, 74; Longsowerby, 98; Blackwell Road Estate, 140; and Wigton Road Estate, 40.

The total number of houses erected by the end of the past year was 308, of which 56 were at Denton Street and Boustead's Grassing, 74 at Stanwix, 98 at Longsowerby, and 80 at Blackwell Road Estate.

The houses in course of erection at the end of the year comprised 40 on the Wigton Road Estate and 60 on the Blackwell Road Estate. During the year 24 houses were built by private enterprise.

Table relating to the present position of certain houses in which Closing or Demolition Orders have been made.

| Number and Situation. | Date represented to Committee. | Date of Closing Order served under Housing, Town Planning, &c., Act, 1909. | Date of Demolition Order served under Housing, Town Planning, &c., Act, 1909. | Remarks. |
|---|--------------------------------|--|---|---|
| 1, 2, 3, 4, 5, 6, 7, & 9 Barley Stack Lane | 21st Nov., 1913 | 9th Dec., 1913 | 10th June, 1914 | Part of the property demolished, the other part still standing |
| 12, 14, 16, 18, 22, 26, & 28 Chapel Street | 19th June, 1914 | 15th July, 1914 | 14th Sept., 1915 | <i>In statu quo</i> |
| 5 houses in Donald's Court, Willow Holme | 19th June, 1914 | 15th July, 1914 | 14th Sept., 1915 | Do. |
| 3 houses, Willow Holme | 19th June, 1914 | 15th July, 1914 | 14th Sept., 1915 | Do. |
| Fay's Lodging House, Drovers Lane, Rickergate | 2nd Dec., 1921 | 13th Dec., 1921 | 12th Sept., 1922 | Purchased by the Corporation for street improvement, property to be demolished. |
| 27, 27a, 27b, 29, 30a, 30b, 30c, & 31 South John Street | 2nd May, 1923 | 8th May, 1923 | ... | Property demolished. |
| 8 houses in Duun's Court, South John St. | | | | |
| 40 & 42 Crown Street | 2nd May, 1923 | 8th May, 1923 | .. | Property made habitable by conversion into 4 self-contained flats. |
| 8 houses in Irving's Court No. 2, Crown St. | | | | Two houses demolished. |

| Number and Situation. | Date represented to Committee. | Date of Closing Order served under Housing, Town Planning, &c., Act, 1919 | Date of Demolition Order served under House- ing, Town, Planning, &c., Act, 1909 | Remarks. |
|--|--------------------------------|---|--|----------------------|
| 2 Dona Court, Crown St. 3 houses in Irving's Court No. 1, Crown St. 30 Robert Street 4 and 5 Young's Crt., Robert St. 37, 39 & 49 South John Street 3 houses in Rayson's Ct. No. 1, South John St. 1 house in Barker's Court, South John St. 3 houses in Rayson's Court No. 2, South John St. | 1st June, 1923 | 12th June, 1923 | ... | House demolished. |
| 93, 95, 97, 99, 99a. 101, 103, & 105 Union St. | 30th Nov. 1923 | 11th Dec., 1923 | .. | .. |

In addition to the particulars given in the following tables, other information will be found in the Inspector's Report, pages 66 and 67.

Table showing number of dwelling-houses erected in the City during the past ten years:—

| Year. | No. of Houses erected. | Year. | No. of Houses erected. |
|-------|------------------------|-------|------------------------|
| 1914 | 38 | 1919 | 2 |
| 1915 | 9 | 1920 | 27 |
| 1916 | 1 | 1921 | 96 |
| 1917 | 2 | 1922 | 123 |
| 1918 | 0 | 1923 | 96 |

Number of New Houses erected during the year :—

| | |
|---|-----|
| (a) Total. | 96 |
| (b) With State assistance under the Housing Acts, 1919 or 1923 :— | |
| (i) By the Local Authority. | 72 |
| (ii) By other bodies or persons. | Nil |
| <i>1.—Unfit Dwelling Houses.</i> | |
| <i>Inspection.</i> —(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Act) | 291 |
| (2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 | 173 |
| (3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | 51 |
| (4) Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation | 123 |
| <i>2.—Remedy of Defects without Service of formal Notices.</i> | |
| Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers | Nil |
| <i>3.—Action under Statutory Powers.</i> | |
| (a) Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919— | |
| (1) Number of dwelling houses in respect of which notices were served requiring repairs | 135 |
| (2) Number of dwelling houses which were rendered fit | |
| (a) By Owners | 111 |
| (b) By Local Authority in default of Owners | Nil |
| (3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close | Nil |

| | |
|---|-----|
| (b) Proceedings under Public Health Acts— | |
| (1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied | 118 |
| (2) Number of dwelling houses in which defects were remedied | |
| (a) By Owners | 110 |
| (b) By Local Authority in default of Owners | Nil |
| (c) Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909— | |
| (1) Number of representations made with a view to the making of Closing Orders | 51 |
| (2) Number of dwelling houses in respect of which Closing Orders were made ... | 51 |
| (3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit | 10 |
| (4) Number of dwelling houses in respect of which Demolition Orders were made | Nil |
| (5) Number of dwelling houses demolished in pursuance of Demolition Orders ... | Nil |

Chief Inspector's Annual Report.

To the Chairman and Members of the Health Committee.

I have the honour to present to you my Annual Report upon the work of the Sanitary Inspectors during the year 1923.

HOUSING.

The works recorded in my last report as being in hand are now completed at property in Newtown Road, Bright Street, Isabella Street, Byron Street, Scott Street, and Milton Street.

Your Inspectors were responsible for a large amount of practical work in the way of rendering old houses fit for human habitation. During the year 155 statutory notices (Sec. 28 of the 1919 Act) were served upon owners of property at Union Street, Crown Street, Robert Street, Byron Street, Scott Street, and Milton Street, the number of dwellings affected being 135.

In addition, 51 Closing Orders under the 1909 Act and 38 notices upon tenants to quit premises were served.

The Committee determined Closing Orders in 10 instances, the houses having been rendered fit for human habitation.

The determining of the Closing Orders related to property in Crown Street, a block of 10 tenements being converted into 4 self-contained flats. Several other properties are in course of conversion into flats and self-contained houses.

The notices to quit were attended with considerable trouble to your staff, who were for months actively engaged in interviewing and re-interviewing the affected tenants in order to get them satisfactorily housed.

Several of the people, for reasons of their own, were not prepared to pay the rent demanded for new houses, so that it became necessary to seek exchanges with tenants of other houses who were desirous of availing themselves of the offer of a new house.

The number of tenants removed direct from Crown Street and South John Street to new houses at Currock was 24, and 33 other displaced tenants were accommodated in different parts of the City in houses vacated by those taking the new houses.

The experiment of removing tenants who have never yet enjoyed the amenities of a modern house from congested areas to a suburban environment will be followed with interest.

A total of 3,562 inspections were made under the Housing Acts, 173 of which were special inspections for recording particulars.

The requirements of our specifications conform as nearly as possible to the Ministry of Health's standard, but regard must be had, in certain cases, to the consequences of being too exacting. For instance, it would not be wise to provide sinks, &c., in tenements liable to be converted into self-contained houses when houses become plentiful.

Seventeen tenements were made into through dwellings.

Various repairs to houses were also effected under the Public Health Acts. In this connection 110 houses were improved.

As a result of the service of Closing Orders, 19 houses were demolished, the serving of Demolition Orders being anticipated.

NUISANCES.

We had 177 complaints of nuisances reported at the office, in addition to 483 matters discovered in routine inspections.

Written and verbal notices are given to abate nuisances, and 406 such notices were served. In 395 cases the nuisance was abated.

DRAINAGE.

The Department has the supervision of drains, except those laid in connection with plans deposited with the Surveyor for new works.

New drains were laid or repairs effected during the year at 59 houses, 47 of which were the result of notices served.

The number of inspections made by your Inspectors was 886, and in 43 cases tests, either chemical or water, were employed.

CONVERSION TO WATER CARRIAGE SYSTEM.

At seven houses in Stanwix conversions from the conservancy system (middens) to water-closets were made.

VAN DWELLINGS.

The usual periodical inspections were made and enquiries put to occupiers of van dwellings accompanying travelling shows or fairs at the Sands. We found no fault, however.

The presence of two vans on private premises was a source of annoyance, but the nuisance was satisfactorily abated.

The site for vans at the Sands has been much improved during the year by the paving of ground around the water taps and the removal of the midden to a more satisfactory position.

COMMON LODGING-HOUSES.

The only registered Common Lodging-house is Lowther House, Lowther Street, owned and managed by this Department, and during the year it was conducted in a satisfactory manner.

The Lodging-house known as Fay's, Drovers Lane, used on sufferance for some time, has been partly demolished.

STABLE PREMISES.

There are approximately 110 of these in the City, and inspections are made at irregular times, the total visits during the year being 167. A few horse-keepers require special attention, as they store unnecessarily large quantities of manure improperly. The cold season was not productive of many flies from this or any source.

Legal proceedings were taken in respect of one insanitary stable midden and yard, and the defendant was fined and an Order for the execution of certain works specified in our notice made.

FACTORIES AND WORKSHOPS.

The number of workshops on our register is 309. Of this number 61 are Domestic Workshops. Included in the above are 75 bakehouses, 3 of which are underground. The general condition of the workshops is good. Cleansing, lighting, and ventilation are well maintained, and there is no overcrowding. 406 visits were paid to workshops.

The factories number 90, and 122 inspections were made.

We received six notices from His Majesty's Inspector of Factories relating to sanitary defects remediable under Public Health Acts. These were complied with and the Inspector subsequently informed of our action. The matters complained of were:—

| | |
|--|-------|
| Sanitary conveniences without ventilated space | 1 |
| Limewashing of bakehouses overdue | ... 4 |
| Insufficient sanitary conveniences | ... 1 |

6

SMOKE NUISANCES.

Minor offences only occurred during the year, and a verbal caution had the necessary effect.

INSPECTION OF MEAT AND OTHER FOODS, PUBLIC MARKETS, &c.

A total of 15 tons 8 cwt. 1 qr. 6lbs. of meat and a quantity of foodstuffs were examined and certified to be unfit for human consumption. Detailed list appears as an appendix.

Regular inspections are made of food shops and stalls, in addition to the Slaughter-houses.

The amount of meat certified to be unfit for food may seem large for the City of Carlisle, but a considerable portion (approximately $4\frac{1}{2}$ tons) is what is known as "casualty meat," *i.e.*, animals which have suffered some accident or sudden illness either on farms or in transit by rail or boat.

SLAUGHTER-HOUSES.

The Public Slaughter-houses are under the control of this Department, and have been maintained satisfactorily. A table showing the total animals killed is given on page 74.

The improvements at the London and North Eastern Railway Slaughter-house were completed in September, and the licence, which had been withheld, was re-issued.

There are three licensed slaughter-houses in the City, one each at the L.M. & S. and L. & N.E. Railways, and one at Messrs. Cavaghan & Gray's Bacon Factory, Harraby. These places are frequently inspected, and have been kept in a satisfactory condition. The Railway slaughter-houses are used exclusively for the slaughter of sheep, which are sent to the London and other markets, while Messrs. Cavaghan & Gray's premises are used exclusively for pigs, mainly for bacon-curing purposes.

DAIRIES, COWSHEDS, AND MILKSHOPS.

There are on the register 23 cow-keepers occupying 36 cowsheds. They were visited at least twice each during the year.

There is a reduction of 2 cow-keepers on last year's report, 1 at Botcherby and 1 at Harraby.

The total number of milk purveyors is 52, 24 of whom reside outside the City. There are, in addition, 15 milk-shops registered.

FRIED FISH AND POTATO SHOPS.

134 inspections were made to 33 fried fish shops. The trade is conducted in a satisfactory manner.

ICE CREAM SHOPS.

This trade is now being largely conducted at restaurants, in addition to the sale by hawkers. We have 19 premises registered. In only 1 case had we reason to seriously complain of the manner in which the trade was carried on.

OFFENSIVE TRADES.

The offensive trades in the City consist of 1 gut scraper, 2 tripe dressers, 1 tanner, and 1 fellmonger.

No complaint was received respecting these trades.

FOOD AND DRUGS ACTS.

Particulars of the 131 samples taken for analysis under these Acts will be found tabulated in the Appendix.

1 vendor of milk was proceeded against, but the Magistrates dismissed the case.

REFUSE REMOVAL.

House refuse collection is carried on as previously, twice and thrice weekly, with a daily collection in the centre of the City.

During the year 17,598 loads of refuse were deposited at several tips (trade refuse carted privately excepted).

The garbage from the Slaughter-house was also tipped and amounted to 421 loads.

DEPOT.

The 19 horses under my charge at Boustead's Grassing are used partly for house refuse and partly for street scavenging.

URINALS.

There are 20 public urinals under my charge. 2 were re-built during the year. All are cleansed daily.

In February I submitted a special report to the Committee upon the position of existing urinal accommodation, with recommendations for the provision of new urinals at several points in the City.

RAT REPRESSION.

Visits were made upon complaint of the existence of rats at 79 premises. Many tests of drains were made and advice given.

749 dead rats were received at the Dépôt. The Corporation pay 2d. for every dead rat caught in the City.

SHOPS ACT.

This Act necessitated 736 day and evening inspections.

3 shop-keepers were prosecuted for breaches of the Shops (Early Closing) Act, (1920), Amendment Act, 1921, and were fined.

INFECTIOUS DISEASE AND DISINFECTION.

We investigated 261 cases, and 136 were removed to hospital for isolation. All the houses from which cases occurred were disinfected. The number of articles of bedding, clothing, &c., disinfected is in the Appendix.

DISEASED AND UNSOUND FOOD.

The following table shows the amount of food seized or surrendered as being unfit for human consumption:—

| Nature of Food Condemned. | | | | | Quantity. | | | |
|---------------------------|-----|-----|-----|-----|------------|-------|------|------|
| | | | | | Tons. | Cwts. | Qrs. | Lbs. |
| Beef ... | ... | ... | ... | ... | 14 | 1 | 0 | 13 |
| Mutton | ... | ... | ... | ... | | 8 | 2 | 14 |
| Pork | ... | ... | ... | ... | | 16 | 0 | 7 |
| Veal | ... | ... | ... | ... | | 2 | 2 | 0 |
| Total ... | | | | | 15 | 8 | 1 | 6 |
| Rabbits | ... | ... | ... | ... | 13 couples | | | |
| Tinned Fruits, etc. | ... | ... | ... | ... | 120 tins | | | |
| Tinned Meat, Fish, etc. | ... | ... | ... | ... | 10 tins | | | |
| Tinned Milk and Cream | ... | ... | ... | ... | 7 tins | | | |
| Salmon | ... | ... | ... | ... | 11½ lbs. | | | |
| Grapes | ... | ... | ... | ... | 2 barrels | | | |
| Tomatoes | ... | ... | ... | ... | 4 boxes | | | |

SALE OF FOOD AND DRUGS ACTS.

Table showing articles purchased during the year, with results of analyses and remarks as to action taken thereon.

| Article. | No. of Samples. | No. found to be Genuine. | Number Adulterated. | Extent and Form of Adulteration. | Remarks. |
|-----------------------|-----------------|--------------------------|---------------------|--|---|
| Milk ... | 54 | 49 | 5 | <i>a.</i> Non-fatty solids 0.78 % below limit <i>b.</i> Non-fatty solids 0.31 % below limit <i>c.</i> Non-fatty solids 0.48 % below limit <i>d.</i> Non-fatty solids 0.80 % below limit <i>e.</i> Non-fatty solids 0.33 % below limit | Samples <i>a</i> , <i>c</i> , and <i>d</i> were purchased from the same source. Vendor was prosecuted, but the case dismissed. Samples <i>b</i> and <i>e</i> were purchased from the same source. |
| Butter ... | 32 | 32 | ... | ... | |
| Sponge Cake | 11 | 11 | ... | .. | |
| Salad Oil ... | 5 | 5 | ... | ... | |
| Lime Juice Cordial | 3 | 3 | ... | ... | |
| Coffee ... | 12 | 12 | ... | ... | |
| Cream of Tartar | 4 | 4 | ... | ... | |
| Lard ... | 5 | 5 | ... | ... | |
| Baking Powder | 5 | 5 | ... | ... | |
| No. of Samples | 131 | | | | |
| No. Genuine | .. | 126 | | | |
| No. Adulterated | ... | ... | 5 | | |

The following Tables give the number of animals killed during the years stated:—

PUBLIC ABATTOIR.

| Year. | Beasts. | Sheep and Lambs. | Calves. | Pigs. | Total. |
|-------|---------|------------------|---------|-------|--------|
| 1917 | 4,166 | 15,609 | 248 | 3,334 | 23,357 |
| 1918 | 3,257 | 53,357 | 235 | 1,894 | 58,743 |
| 1919 | 3,054 | 57,885 | 815 | 2,451 | 64,205 |
| 1920 | 2,930 | 35,862 | 828 | 2,462 | 42,082 |
| 1921 | 3,135 | 15,566 | 545 | 3,625 | 22,871 |
| 1922 | 3,512 | 16,294 | 518 | 4,711 | 25,035 |
| 1923 | 4,028 | 13,249 | 768 | 4,644 | 22,689 |

L.M. & S. RAILWAY SLAUGHTER-HOUSE.

| | | | | | |
|------|-----|--------|-----|-----|--------|
| 1921 | ... | 31,301 | ... | ... | 31,301 |
| 1922 | ... | 40,790 | ... | ... | 40,790 |
| 1923 | ... | 26,121 | ... | ... | 26,121 |

L. & N.E. RAILWAY SLAUGHTER-HOUSE.

| | | | | | |
|------|-----|--------|-----|-----|--------|
| 1921 | ... | 43,366 | ... | ... | 43,366 |
| 1922 | ... | 55,926 | ... | ... | 55,926 |
| 1923 | ... | 39,897 | ... | ... | 39,897 |

REFUSE REMOVAL.

| | |
|---|--------|
| Number of Loads of House Refuse removed to Tips | 17,598 |
| ,, Loads of Slaughter-house Garbage ... | 421 |

DISINFECTION.

| | |
|---|-----|
| Number of Cases of Infectious Diseases Investigated | 261 |
| ,, Cases of Infectious Disease removed to Hospital | ... |
| ,, Mattresses and Beds Disinfected | 136 |
| ,, Bed Covers | 120 |
| ,, Bolsters and Covers | 122 |
| ,, Pillows and Covers | 94 |
| ,, Blankets | 446 |
| ,, Quilts | 419 |
| ,, Carpets and Rugs | 244 |
| ,, Sheets | 14 |
| ,, Coats | 81 |
| ,, Miscellaneous Articles | 17 |
| ,, Houses Disinfected | 135 |
| ,, Schools Disinfected | 185 |
| ,, | 2 |

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—Inspection of Factories, Workshops, & Workplaces.

| Premises. | Number of | | |
|--|--------------|------------------|---------------|
| | Inspections. | Written Notices. | Prosecutions. |
| FACTORIES (Including Factory Laundries) | 125 | 8 | Nil |
| WORKSHOPS (Including Workshop Laundries) | 580 | 26 | Nil |
| WORKPLACES (Other than Outworkers' premises included in Part 3 of this Report) | | | |
| TOTAL | 705 | 34 | ... |

3.—Home Work.

| NATURE OF WORK. | OUTWORKERS' LISTS, SECTION 107. | | | | | |
|-------------------------------------|---------------------------------|-------------------|---------------|---------------------------|-------------------|---------------|
| | Lists received from Employers. | | | | | |
| | Sending twice in the year. | | | Sending once in the year. | | |
| | Lists. | Outworkers. | | Lists. | Outworkers. | |
| | | Con- tractors. | Work- men. | | Con- tractors. | Work- men. |
| Wearing apparel— Making, &c. ... | 2 | ... | ... | 1 | ... | .. |
| Cleaning and Washing ... | ... | ... | ... | ... | .. | .. |
| Total ... | 2 | ... | ... | 1 | ... | ... |

2.—Defects found in Factories, Workshops, and Workplaces.

| Particulars. | Number of Defects. | | | Number of Prosecutions. |
|--|--------------------|-----------|-----------------------------|-------------------------|
| | Found. | Remedied. | Referred to H.M. Inspector. | |
| <i>Nuisances under the Public Health Acts :—</i> | | | | |
| Want of cleanliness | 24 | 24 | ... | ... |
| Want of ventilation | ... | ... | ... | .. |
| Overcrowding... .. | ... | ... | ... | ... |
| Want of drainage of floors ... | ... | ... | ... | ... |
| Other nuisances | ... | ... | ... | ... |
| Sanitary accommodation :— | | | | |
| { Insufficient | ... | ... | ... | ... |
| { Unsuitable or defective | 6 | 6 | ... | ... |
| { Not separate for sexes | 1 | 1 | ... | ... |
| <i>Offences under the Factory and Workshop Acts :—</i> | | | | |
| Illegal occupation of underground bakehouse (s. 101)... | ... | ... | ... | .. |
| Breach of special sanitary requirements for bakehouses (ss. 97 to 100) | ... | ... | ... | ... |
| Other offences (Excluding offences relating to outwork, which are included in Part 3 of this report) | 3 | 3 | ... | ... |
| Total | 34 | 34 | Nil | Nil |

4.—Registered Workshops.

| Workshops on the Register (s. 131) at the end of the year | | | Number. |
|--|---|--|---------|
| Important classes of workshops, such as workshop bakehouses, may be enumerated here. | Workshops | | 173 |
| | Domestic Workshops ... | | 61 |
| | Bakehouses | | 75 |
| | Total number of workshops on Register ... | | 309 |

5.—Other Matters.

| Class. | Number. |
|---|---------|
| Matters notified to H.M. Inspector of Factories :— | |
| Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) | .. |
| Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory & Workshop Acts (s. 5, 1901) : | |
| Notified by H.M. Inspector | 6 |
| Reports (of action taken) sent to H.M. Inspector | 6 |
| Other | ... |
| Underground Bakehouses (s. 101) — | |
| In use at the end of the year | 3 |

6.—Classified List of Workshops.

| Business. | No. | Business. | No. |
|-------------------------|-----|-------------------------|-----|
| Millinery .. . | 21 | Tinsmiths | 2 |
| Tailoring | 33 | Hand-weavers | 2 |
| Sugar Boiling | 4 | Fishing Tackle | 3 |
| Cycle Repairing | 10 | Stocking Knitting... .. | 1 |
| Dressmaking | 32 | Seale Repairers | 2 |
| Bakehouses | 75 | Picture Framing | 2 |
| Boot Repairing | 36 | Photography | 7 |
| Saddlery | 6 | Tripe Dressing | 2 |
| Meat Preparation | 27 | Marine Dealers | 4 |
| Watch Makers, &c. . | 15 | Gut Scraper | 1 |
| Upholstering | 5 | Fellmonger | 1 |
| Cloggers | 10 | Tanner | 1 |
| Coopers | 3 | Rudd Maker | 1 |
| Basket Making | 2 | | |
| Umbrella Repairing ... | 1 | | |
| | | Total | 309 |

TABULATED LIST OF WORKS EXECUTED DURING 1923 AS A RESULT OF NOTICES SERVED UNDER THE HOUSING ACTS.

| Particulars of Work. | Under Sec. 23, Housing, &c., Act, 1919. | As a result of Closing Orders. |
|---|---|--------------------------------------|
| | No. of Houses. | |
| Damp Walls rendered in Cement | 34 | 5 |
| Walls Plastered or Re-plastered | 93 | 5 |
| Ceilings " " " " " " " " " " " " | 86 | 6 |
| Flagged or Boarded Floors Re-laid or Repaired | 64 | 5 |
| Windows provided, or Overhauled and made to Open | 80 | 5 |
| Roofs made Watertight... .. | 38 | 5 |
| Eaves and Down Spouting made Watertight ... | 70 | 5 |
| External Walls Pointed in Cement | 66 | 5 |
| Door Jambs, Window Sills, Heads, and Plinths Faced Up in Cement | 73 | 5 |
| Doors and Internal Woodwork Repaired ... | 65 | 6 |
| Handrails to Stairs provided | 11 | 1 |
| Skirtings (wood or cement) Made or Repaired ... | 51 | 5 |
| Cooking Ranges Re-set or Repaired | 37 | 4 |
| New " " provided | 1 | 2 |
| Ventilated Food Stores provided | 28 | 4 |
| Back to Back Tenements converted to Through Houses | 6 | 11 |
| Slop-sinks provided, with Trapped Waste-pipes, complete | 13 | 5 |
| Water Supply laid on to above | 10 | 5 |
| Sink Waste-pipes Repaired | 4 | — |
| Drains, New or Repaired | 17 | 2 |
| | Number | |
| Yards Paved or Re-paved | 17 | 2 |
| Common Passages or Staircases Re-plastered and Repaired | 17 | 3 |
| Common Passages Re-paved | 11 | 2 |
| New Water-Closets provided | 10 | 3 |
| Water-Closets Repaired | 19 | — |
| New Wash-houses provided | 5 | 1 |
| Wash-houses Repaired | 13 | 1 |

SUMMARY OF SANITARY WORK PERFORMED IN CONNECTION WITH INSPECTION OF DISTRICT.

| Nature of Inspections. | Number of visits paid. |
|---|---------------------------|
| HOUSES— | |
| Houses inspected in accordance with the Housing (Inspection of District) Regulations, 1910 | 3562 |
| Houses inspected under the Public Health Act, 1875 | 2897 |
| Houses inspected, special inquiry | 14 |
| Visits <i>re</i> Infectious Diseases | 779 |
| Drains Inspected | 886 |
| ,, Tested | 43 |
| Common Lodging-houses inspected | 4 |
| Inspections <i>re</i> Nuisances from Fowls & Animals | 48 |
| Common Yards, Courts, & Alleys inspected ... | 6911 |
| Temporary or movable dwellings inspected ... | 203 |
| Public Halls, Schools, etc.... .. | 7 |
| Dirty Houses | 11 |
| Nuisances investigated | 660 |
| Visits <i>re</i> overcrowding | 24 |
| TRADE PREMISES— | |
| Bakelhouses | 174 |
| Laundries | 3 |
| Cowsheds | 89 |
| Milkshops | 31 |
| Ice-Cream Shops | 22 |
| Fried Fish Shops | 134 |
| Slaughter-houses | 601 |
| Markets | 212 |
| Factories | 122 |
| Workshops and Workplaces | 406 |
| Chimneys observed (smoke nuisances) ... | 10 |
| Visits after serving notices to supervise works in progress | 243 |
| Refuse Tips | 118 |
| Stables | 167 |
| Shops Act Inspections | 736 |
| Water samples taken for analysis | 8 |
| Visits <i>re</i> Rats and Mice Destruction Order ... | 79 |
| Miscellaneous inspections | 1613 |
| Urinals Inspected | 79 |
| Notices served to abate Nuisances | 406 |
| ,, complied with | 395 |
| ,, not complied with | 11 |

REMEDIAL WORKS DONE BY NOTICES UNDER PUBLIC HEALTH ACTS.

| | | | | |
|--|-----|-----|-----|----|
| Overcrowding Abated | ... | ... | ... | 4 |
| Walls, Damp and Defective, Remedied | ... | ... | ... | 14 |
| Roofs, Guttering, &c., Repaired | ... | ... | ... | 79 |
| Yards Paved and Repaired | ... | ... | ... | 7 |
| Water-closets Repaired | ... | ... | ... | 41 |
| Flushing Apparatus Repaired | ... | ... | ... | 4 |
| Drains Unstopped | ... | ... | ... | 70 |
| Drains Reconstructed and Repaired | ... | ... | ... | 59 |
| Accumulation of Manure, &c., Removed | ... | ... | ... | 24 |
| Workshops (including Bakehouses), Cleansed, Lime- washed, &c. | ... | ... | ... | 18 |
| Sink Waste-pipes Repaired or Renewed | ... | ... | ... | 3 |
| Mill Races Cleansed | ... | ... | ... | 4 |
| Open Ventilation and Lighting Improved | ... | ... | ... | 20 |
| Wash-houses Repaired | ... | ... | ... | 3 |
| Privies Abolished | ... | ... | ... | 4 |
| Water-closets substituted therefor | ... | ... | ... | 7 |
| Wastes of Water reported | ... | ... | ... | 46 |

I have the honour to be,

Your obedient Servant,

C. W. HILL,

Chief Inspector.

